







#### BOARD OF EDUCATION.

Educational Pamphlets, No. 26.

# EDUCATION AND PEASANT INDUSTRY. SOME STATE AND STATE-AIDED TRADE SCHOOLS IN GERMANY.

#### LONDON:

#### PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

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PRINTERS TO THE KING'S MOST EXCELLENT MAJESTY.

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#### PREFATORY NOTE.

The accompanying paper by Miss Edith Edlmann describes the attempts of various German governments to develop, by education and co-operation, certain peasant industries. It is based on actual observation of the work and on a careful study of the available literature. Miss Edlmann began her investigations with the advantage of a considerable knowledge of the social conditions of the people both in this country and in Germany.

The experiments here described show how, by careful organisation and by the provision of good patterns, excellent results can be obtained so long as direct competition with factory work is avoided. How far such a scheme could be successfully launched in this country where the factory system is more fully established and where the standard of comfort is considerably higher, can only be determined by actual

experiment.

The Board must not necessarily be held to endorse all the opinions expressed in this pamphlet, for which the author is alone responsible.

Office of Special Inquiries and Reports, December, 1912.

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#### EDUCATION AND PEASANT INDUSTRY.

#### SOME STATE AND STATE-AIDED TRADE SCHOOLS IN GERMANY.

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#### EDUCATION AND PEASANT INDUSTRY.

### Some State and State-Aided Trade Schools in Germany.

#### Introduction.

The following particulars, relating mainly to a small number of schools connected with peasant industries, were collected during a visit to Germany in the autumn of 1910. As much less is known in England concerning the progress and development of this special section of the trade school group than of more general types, the following notes may prove of interest, not only to students of educational organisation, but also to those who are concerned with the development of rural industries. The information obtained has only recently been readily accessible to Germans themselves, and in some cases only since the writer's return to England. Several of the schools are still very young and in the making rather than already made, consequently official reports are only just being published. The schools are the outcome of recent careful investigation into the social and economic conditions of particular districts, and represent gradual developments and cautious experiments which are seeking to adapt and train local capacity to meet local need. Sensitive and tentative, they are moulding the people and are being moulded by them. In these early stages it is felt that success will be all the surer if they are not too minutely classified at the outset as belonging to any set type. Their characteristic is that they are being allowed a generous measure of elasticity to expand according to the special requirements of special localities, thus helping to restore the equilibrium of those portions of the national life, the balance of which has been upset by the industrial revolution of modern days. The aim of most of these schools is to bring the produce of poor and secluded districts to the knowledge of and up to the requirements of the open market, and thereby to assist in raising the united family earnings—usually accruing in small sums from several sources—up to the standard of a living wage.

The following pages are largely based on personal visits to directors of schools, to exhibitions, and to sale depôts, also on publications and reports kindly supplied by these directors, by editors of leading papers, magazines, and technical hand-books, who have freely and generously put the material at the writer's disposal. For those who wish for a fuller account than is here possible, a list of reports and articles is given in the Bibliography (see p. 59-61 below). To several of these publications the

writer is very largely indebted for any interest which the present

account may possess.

The schools described are State and State-aided schools for woodwork, basket-weaving, embroidery, lace, ceramics, and glass in Bavaria; for weaving and white embroidery in Wurtemberg; for lace in Saxony; and for small iron and steel ware in Hesse-Nassau. The State-aided instruction given in the pottery-making districts of Elsass-Lothringen is also mentioned, and a slight sketch is added of one or two other methods which came under the writer's notice for encouraging and supporting home workers and for raising their efficiency. Among these latter descriptions is the support given to small independent craftsmen by the State and by charitable endowment in Wurtemberg, and by the Society for Folk Art and Folk Lore in Bavaria, also the endeavours of the Trade Union of the Women Home-Workers of Germany to improve the efficiency of its members in the ready-made clothing trades.

#### BAVARIA.

The State and State-aided trade schools in Bavaria are all under the Ministry of the Interior for Church and School Affairs (Ministerium des Innern für Kirchen-und Schul-angelegenheiten). They have been either founded or re-founded of late years with the special view of fostering home industries, by means of awakening and training the artistic instinct dormant in the peasantry. They lie scattered all over Bavaria, and are to be found for the most part where the industry-now State-nurtured with such success and discrimination—has existed for ages. For the most part, though making some long-established peasant industry their starting point and striving to bring that industry to all possible perfection, no tradition is preserved merely because it is tradition, the dead-hand is nowhere visible. Everywhere the aim is to allow play to independence and originality if it be the outcome of intelligence and taste. New lines of development are carefully encouraged if showing compatibility with the labour and material at hand. In fact, "wherever an " ancient home industry existed in any secluded village, the "State has stepped in to lessen the penury of the peasants by " promoting that home industry and the sale of the produce. "Five of these State ventures are devoted to purely women's work."\* Generally speaking, the schools are independent units. Some, however, are more or less attached to some intermediate technical school (technische Mittelschule). The School for Ceramics at Landshut, for instance, is independent, and not affiliated to the Realschule in that town. "Some rejoice in " having a home of their own, perhaps even luxurious new " buildings like the Wood-carving Schools at Partenkirchen " and Oberammergau; others again, like the Embroidery

<sup>\*</sup> Unsere Frauen. Article by Toni Ruth. Gutenberg's Illustrierte Sonntagsblatt, 1912, p. 666.

"School at Enchenreuth content themselves with meeting in " the large room of the village inn. Each is housed according "to the existing means and requirements." The selected trades are taught on the highest utilitarian and artistic lines possible. The aim, as already said, is to educate the people of each district in the love and knowledge of the inheritance of art bequeathed to them by their forefathers, and in the love and knowledge of good craftsmanship, good design, and good quality of material. To test the efficiency of the teaching and the saleableness of the work produced, the State itself sells the produce of the schools and pays the pupils for work done. It feels this admissible as it always expressly avoids all competition with existing local industries, and aims at creating its own market by the education of public taste, striving to prove that beauty and suitability can be combined and placed within the reach of the slenderest purse. Nothing obsolete is made and modern exaggerations are carefully excluded. There is no production of trash. Exhibitions, for sale and order and to bring the work to public notice, are therefore a very definite part of the system. The State has a permanent depôt for this purpose in Munich, under the direction of Frau Mia Cornelius. schools also exhibit in other towns whenever opportunity offers. As an educational process exhibition is felt to possess great value. The interest awakening all over Germany in home industry brings the work of many districts and many schools together on these occasions and all learn much, both from their own successes and failures and from those of others.

The Schools described† fall naturally into three groups:—

- I. Schools for Woodwork (7) and Basket-weaving (1);
- II. Schools for Women's Handicrafts (1 embroidery and 3 lace schools);
- III. Schools for Ceramics (2) and Glass-making (1).

When the writer was in Munich, the State Information Bureau, together with the Sales Depôt and Permanent Exhibition in connection with these Schools, were in offices in the Damenstiftstrasse. These offices have now been given up. The Information Bureau is at present amalgamated with the Bayerischer Hausindustrieverband (Union of Bayarian Home Industries) in the Ottostrasse. The Exhibition is to be found

<sup>\*</sup> K. Lory, Bayerns kunstgewerbliche Fachschulen (Das Bayerland, 22. Jahrgang, 1911, No. 27, p. 407).

<sup>†</sup> Bayerische Landes-Gewerbezeitung, 3. Jahrgang, 1911. Heft No. 1, p. 5, gives a short description of the produce of all these schools as shown at the United Xmas Exhibition in Munich (1910). (See Bibliography, p. 59). Das Bayerland, 22. Jahrgang, 1911, No. 27, p. 407, also gives a short general description of the work of these schools from the able pen of Dr. K. Lory, of Munich (illustrated). (See Bibliography, p. 60). For fully illustrated accounts of the work done in these schools see the expert and interesting articles by Dr. K. Lory in Kunst- und Handwerk, Jahrgang 1910, Heft 3, and Jahrgang 1911, Heft 3. (See Bibliography, p. 60.)

in a room in the Domfreiheit where the collective produce of the various Bavarian Trade Schools is permanently on view and sale.

Besides the schools enumerated above, there are two State Higher Weaving Schools about which a few words may be said, although they do not come under any of the groups just mentioned.

#### Schools for Woodwork and Basket Weaving.

The Schools for Woodwork are situated at Berchtesgaden, Partenkirchen, and Oberammergau, all in Upper Bavaria; at Zwiesel in the Bayerischer Wald; Bischofsheim a. d. Rhön; Neuhammer in Spessart; and at Fürth near Nuremberg. In many of these places the industry has existed for hundreds of years.

Berchtesgaden is on the Austrian frontier near Salzburg. The drawing school was founded in 1840; carving was added in 1859, and the study-plan was revised in 1883 and 1910. "This school " perhaps more than any other expresses the characteristic taste of the Bavarian peasantry most definitely. Its speciality is " very brightly painted wood-ware, such as ornamental boxes, cradles, sleighs, go-carts, and toys of all kinds, especially The school strives to fulfil the double task of improving the output and obtaining a market, laying particular stress on quality of material, utility, and beauty of form. articles made are readily bought by the summer visitors. " deference to the cosmopolitan tastes of the purchasers and also " on account of the many-sided training given to the pupils, "the school does not attempt to insist on any one particular style."† It has a four years' course and gives a thorough training to art-cabinet-makers and figure carvers. It produces furniture, and instructs in house decoration and also has courses for joiners and a school for elementary school children, apprentices, and assistants. The leaving certificate is granted jointly by the two Departments of State approximating respectively to the English Board of Education and Board of Trade. The school is under the Chamber of the Interior of Upper Bavaria and directly under the State District Office of Berchtesgaden.‡

Partenkirchen.—This school, founded in 1869, produces simple and ornate furniture of all descriptions, as well as carved frames, mirrors, clocks, and animals from life in all sizes. It also manufactures violins.

Oberammergau.—This school was founded for drawing in 1810, and as a school for modelling in 1856. The carving section was added in 1878. There is a preparatory drawing course, to which boys and girls are admitted at the age of ten. The

‡ See Appendix I., p. 50.

<sup>\*</sup> K. Lory, Bayerns kunstgewerbliche Fachschulen (Das Bayerland, 22. Jahrgang, 1911, No. 27, p. 408).

<sup>†</sup> Bayerische Landesgewerbezeitung, 3. Jahrgang, Heft No. 5, p. 75.

village is known all over the world as a centre of religious art. and "this aspect is particularly accentuated in the schools." Pure and noble conception is fostered and feelingless and stereotyped representation is discouraged. On leaving the elementary school talented boys generally join the carving Those that cannot afford to enter for this regular training, apprentice themselves to carvers of religious subjects " (Christus-Schnitzler) or to some other industry. All apprentices, however, attend the drawing and modelling instruction given at the school, and many continue to do so after having "finished their apprenticeship. The length of training for those attending the carving course is four years, but specially "talented figure carvers can remain longer if they wish. Competitions in design are part of the school training. The school, as yet, has no organised sales department, though small articles made at home by the pupils have been shown at the Munich depôt. Special attention is being directed to this point at the present time." The school also produces artistic furniture.

Zwiesel.—The school at Zwiesel in the Bayerischer Wald combines woodwork with glass manufacture. The original carving school was established over one hundred years ago, but was re-founded and the glass school added in 1904. It is fast coming to the front in both trades. It works more especially in rare woods, such as ebony and sandal-wood and only uses its own designs. The glasswork shows signs of originality and individuality. The trade tuition is united with a general education (Realienunterricht) and the pupils begin practical work at the age of seventeen or eighteen. There is a preparatory course for elementary school children.

Bischofsheim and Neuhammer.—These schools mostly turn their attention to small articles, some simply and others elaborately carved, such as chessmen and boards, napkin rings, &c. Bishofsheim has of late been particularly successful in small original figures of all kinds and in coloured bas-reliefs.

Fürth.—This school was founded in 1900 for the production of furniture, its speciality being mosaic and marquetry (intarsia) and the surface treatment of woods. No industry of the kind existed previously.

Lichtenfels.—Founded in 1904 the Basket Weaving School is doing excellent work in training its pupils in accuracy, good taste and in variety of manufacture, and in waging war against the bad taste shown in much local work. The industry is of ancient date—whole parishes, including children of all ages, work at it, a circumstance which leads to unevenness in the quality of the output and forms one of the difficulties which the school endeavours to overcome. The examples seen by the writer were of real beauty and delicacy, and consisted of

<sup>\*</sup> Bayerische Landesgewerbezeitung, 3. Jahrgang, Heft No. 5, p. 76.

baskets of all kinds, with and without handles, with and without lids, work baskets, flower baskets, bread baskets, paper baskets, &c. Tables, easy chairs, stands, &c. are also made. Japanese influence can be traced, but no slavish imitation.

#### Schools for Women's Handicrafts.

The Embroidery School at Enchenreuth.\*—The economic conditions of the district which have led to the foundation of this school may be briefly summed up as follows:—"Amid the green uplands and wooded valleys of Upper Franconia where agriculture offers little else to the peasantry beyond potato growing, embroidery imported from Plauen, in Saxony, has provided the essential Nebenberuf or subsidiary calling so imperative in such districts. In winter the snow lies deep and long, confining the inhabitants indoors, and the women work hard and skilfully at white embroidery which finds a market all over Germany and in far-off lands."† The winter's production is collected by agents of various business houses, called Factoren, a word applied in Scotland to land-agents and bailiffs. In 1900 the Government decided to start trade tuition in the district in the form of summer classes, and Frau Professor Mia Cornelius, who had received her own art education in the Kunstgewerbeschule (Industrial Art School), in Munich, was invited to draw up a report and suggestions. These were accepted, and in 1903 she became the director and organizer of the experiment. from the local industry in white embroidery, she also found that the women, in their spare moments, worked natural flowers in coloured silks on very fine white linen. From an artistic point of view this work was atrocious and not in demand by the factors. The girls, working in the fields all day, had the roughened hands of those engaged habitually in manual labour. Only fine hands, she said to herself, should attempt fine work, and only one girl here and there possesses this necessary qualification. It was to this coloured work, however, that Frau Cornelius turned for inspiration, setting about to devise some more suitable style and medium, whereby to render it both educative and marketable. She decided on coarse strong linen or woollen material and bold simple design as best suited to the character of a peasant industry. As has been already stated, a very special point in the institution of the Bavarian State Trade Schools is that they shall in no way injure private enterprise, and by the adoption of this plan she avoided any possibility of competition with local employers. She felt also that she would be providing a good training ground for girls, who would

<sup>\*</sup> See Appendix I., p. 51, and Bibliography, pp. 60-61, articles in Kunstund Handwerk and Stickereizeitung, X. Jahrgang, Heft 10, Juli 1910. † Stickereizeitung, X. Jahrgang, Heft 10, p. 1.

many of them pass on later to the white embroidery work. Furthermore she realised that should her plan succeed, as has been the case, the district would be provided with an additional trade; should it fail, the old industry would still remain

undisturbed to which her pupils could return.

The school as it exists to-day consists of classes held during the summer months; in the spring all are helping in the fields to prepare the land for sowing, in the autumn all are busy potato digging. The girls are taken on leaving the elementary school and forty to fifty are trained annually. The courses are very popular, the same girls coming again and again. Many have been through three or four courses, and as many as one hundred are sometimes attending at one time. The aim of the school is to train workers not only to meet the demands of the local industry, but to enable them to undertake a higher class of independent work than is at present usually obtainable in the district. It also strives to bring its teaching into the closest relationship with peasant art and peasant home industry, and to produce saleable goods of high artistic excellence. The pupils are paid for work done. In design and colouring the work is strong, bold, and simple; the garments and household articles made are all simple and practical. The girls are taught from the start to produce marketable goods, and the school has discarded the usual Mustertuch or sampler method of instruction. The study of good foreign design is not neglected. Russian influence can be felt in some instances, and where introduced is successful. Local tradition, when good, is preserved, as in the fine Alte Egerländer pattern, seen on many articles. The work mostly consists of house and garden cushions, coverlets, curtains, tea and table cloths, ladies' blouses, and children's caps, bonnets, frocks, satchets &c., in great variety. The articles are ornamented with embroidery, appliqué, and fancy stitching. To protect its design the school has adopted a special trade-mark or Ortsstempelschutz. This consists of the initial letters of the words Enchenreuth Haus Industrie enclosed within a plain bordering E H I .

The school has exhibited successfully at the Hague, Heidelberg, Zurich, Stuttgart, Leipzig, Darmstadt, Berlin, and at the Brussels Exhibition, and large orders have often resulted.

In October 1910 thirty girls had already been trained who were competent to be employed on commission work during the winter months, and to this number about ten are added yearly. The girls are very keen and are paid at the rate of 20 pf. an hour. This payment is equivalent to  $2\frac{1}{2}d$ . of English money, and is interesting as being identical with the minimum wage lately fixed for the Cradley Heath chain makers under the Trades Boards Act, and as closely approximating to the  $2\frac{3}{4}d$ ., rising to 3d. in 1912, recently arranged for the Nottingham machine lace finishers. The designs for this winter commission work are made, the colour scheme selected, and the work begun in Munich. It is then sent down to Enchenreuth, and from this

point the girls entirely finish and make up each article. All were very busy during the winter of 1910–11, as a large number of orders were received, amongst them one from the writer for a

blouse which has been most effectively embroidered.

The United Pillow Lace Schools of Oberpfalz.\*—These schools exist at Stadlern, Schönsee, and Tiefenbach, three typical mountain villages lying at a high altitude on the Bohemian frontier, and situated on or near the now deserted mediaval trade route between Nuremberg and Prague. Stadlern, with its pilgrimage church, has been called the Bethlehem of Oberpfalz. Schönsee is an ancient little border town possessing market rights dating from 1354. The land is one of ravine, of wood and trout stream and of towering crags crowned with the ruined strongholds of old robber-knights. Without the help of some subsidiary calling the soil has ever proved insufficient to support its peasant population. Small grain and sawmills and glassworks are numerous, and electric light is abundant in all the larger villages, owing to the water power everywhere obtainable. Until the devastation caused by the Black Death and the Thirty Years War a trade in salt flourished, and many smithies and smelting furnaces were to be found. Later on, an equally successful weaving trade arose with its markets at Nuremberg and Ravensberg, and the peasantry—who were in possession of fishing rights—developed a widespread and lucrative fish-breeding industry. Both these forms of livelihood have however vanished, the former having been completely wiped out by the advent of machinery and the factory system. Thousands of peasants migrated during the last century and the flight from the land still continues. In this deplorable state of things those remaining sought, yet again, for some new form of supplementary earning, and found it in the making of pillow lace, an industry which had for some time past been gradually making its way over the frontier from Bohemia. In 1849 a lady of the district imported a trained instructress from Brussels and tried to start the work as a definite Nebenberuf, and in 1899 the Bavarian Government -following the example of Bohemia, which already had its flourishing system of State Lace Trade Schools—took the matter up for the first time with the definite aim of establishing a profitable and much-needed industry and of stemming the rush to industrial centres.

The new venture was started at Stadlern in 1901. This school was followed by a second at Schönsee in 1906, and a third at Tiefenbach in 1907. In all these cases the call for the school came from the district itself, the first person in each instance to work up local interest was the village priest, who enlisted the sympathy of the local government official (Kgl. Bezirksamtmann), both working whole-heartedly for the furtherance of the scheme before the Government moved in the matter. Evidently also the peasant women themselves were keen. In the case of

Schönsee the local Loan Society has stood by the effort; in the case of Tiefenbach the elementary village schoolmistress has given indefatigable help. It was in these similar and several ways that the beginnings were made. The opening of each school was made the occasion of a village celebration and of considerable enthusiasm and rejoicing. The village priest in each case has since been made the District Government Inspector of the now flourishing schools. In 1905 the school at Stadlern moved into school buildings of its own, the pupils numbering forty-five. The instructress is from Vienna. The school has a Sales Association of forty members, who sell the work, making sometimes as much as 8,000 marks, with a net surplus of 300 marks in the course of a year. These associations have been formed in connection with several schools of this type, both in Bavaria and Austria, and consist of persons in various parts of the country who form themselves into voluntary associations with the object of making the work of such districts better known.

The school at Schönsee opened in 1906 with one hundred pupils, the instructress being a certificated teacher from the Central Imperial Lace Training Course in Vienna. The little town provides the building, the teacher's residence, and also heating and light, while the Government meets this local effort by appointing, paying, and pensioning the teacher. Between four and five hundred marks weekly are paid out during the winter months to the pupils of this school for work done. "Much " arduous work fell to the promoters during the inauguration of "the scheme. First and foremost there was the haunting possi-" bility of failure in securing a market, but this fear was soon "dissipated. From the first orders were plentiful, one firm alone ordering thousands of yards of lace edging for trimmings. A new era set in for the industry, interest was aroused on all sides, so that many who had put aside their pillows for many a long day resumed work with renewed energy and interest. Prices improved owing to the attention of the local dealers being attracted by the beauty and the " higher standard in design and execution that at once became manifest and which was set by the work produced in the school. Exhibitions have since demonstrated the wonderful progress made in the district during the last four years, due to the able tuition of the talented school instructress."

The school at *Tiefenbach* was opened in 1907 with sixty-seven pupils and a teacher from the district. There is a Sales Association of nineteen members. While keeping in the main to the accepted styles in the patterns executed, this, the youngest of the schools, has made some bold and striking departures in design and treatment, showing very modern art tendencies in some of its production. In addition to a large collection of ancient and modern designs of its own, the Tiefenbach school is the home of a very fine collection of antique lace presented to

<sup>\*</sup> Franz Lehner, Vereinigte Klöppelschulen der Oberpfalz, p. 22. (See Bibliography, p. 60.)

the allied schools by the Bavarian National Museum. The pupils have already outgrown the accommodation provided for them,

and are obliged to receive their instruction in relays.

The United Schools provide a thorough instruction in all branches of pillow-made lace. They are free to all girls between the ages of seven and sixteen in the respective communes (Gemeinden) in which they are situated. The pupils attending each school are divided into three classes. Class I. comprises beginners and workers of normal intelligence, Class II. comprises pupils of somewhat higher capacity, and Class III. pupils distinguished by skill and industry. The girls attend for four hours daily, and the schools close during the months of August and September. The standard aimed at is so to train each pupil that on leaving she is able to execute any given pattern with taste, cleanliness, and delicacy. The habits of attention, application, order, cleanliness, and good behaviour inculcated are considered by the authorities to be a valuable factor for future efficiency in the home. The schools are under the local school authority, and are subject to State inspection. The regulations framed for elementary public schools are applicable to these schools, subject to such modifications as may be necessary.

A continuation and improvement school for older workers, where quicker methods and better designs are taught than those found existing in the neighbourhood is also part of the

scheme, as well as a savings bank to encourage thrift.

As stated above, all the schools manufacture the same wide range of laces, but different patterns are used in each. In the simple work cleanliness, accuracy, and effect is the aim. The elaborate work is of exquisite delicacy, and whether following ancient or modern designs, is of high excellence. Duchesse, guipure, Brussels, baroque, and many other kinds are made on the pillow, the material used being linen thread. Silk lace and gold and silver lace are also made. As in the Embroidery School at Enchenreuth, so here, also, everything produced is for current market demand, and consists of beautiful altar lace, vestments, surplices; of ladies' blouses, fichus, fans, collars, scarves, parasol covers; of children's dresses, hats and bonnets; of many household articles, such as table covers, tea cloths, bed spreads, and of quantities of lace for trimming, edging, and insertion.

The art supervision of these schools is also assigned to Frau Mia Cornelius. To obtain fresh designs she has adopted one of the two following methods. Should she, for instance, be in need of a new design for a lace collar, she either gives the order to some well-known Munich lady artist or she announces an open competition among the women students of the Munich Industrial Art School. By this means she gets twenty to thirty good drawings, from which she selects as many as she needs. The State pays for all it takes. This method benefits both the lace industry and the Industrial Art School. Formerly she generally employed the first plan, but latterly she has found the second method the more successful. The influence of fine old

church lace designs can also be traced in the work of these schools.

The opinion of the Vicar of Schönsee—who is also the Local Government Inspector of the lace school in his parish, and of whose graphic and valuable little treatise on the subject this entire description is practically a summary—is that the results of the training given in the schools have thoroughly proved the wisdom of their institution. He considers their educational value high as checking truancy, as awakening a feeling for artistic form, as inculcating punctuality, love of order, carefulness, and attention, and as supplying the inestimable blessing of providing an early insight into the meaning of regular work, and of a definite profession in life. Improved instruction has brought better orders from large firms into the district. He also considers the Sales Associations important factors and says that they have materially helped in the successful advance which is so happily characterising the industry. The schools work in hearty support of the Children's Protection Act (Kinderschutzgesetz)—"the first act to regulate industry, which steps over the threshold of the home "-impressing on parents and guardians the advisability of not laying too much stress on an immediate money return for their children's work. Parents are encouraged to spend their children's lace school earnings on better food and clothing for the child itself. Earning by children still of school age, other than at the lace school, is generally discouraged. The magnificent mountain air and the sanitary, well-ventilated schoolrooms prevent all ill effects of extra school hours. Particular attention, Herr Lehner assures us, is always paid to securing a good steady natural or artificial light so that the children's eyes may not be strained. The lessons are always interspersed with physical drill with songs and the recitation of poetry and prose learnt in the elementary school. Children with weak eyes or unsuitable constitutional defects are discouraged from joining the school, or taking up the work as a profession. The children come willingly to the well-warmed, comfortable rooms and are readily sent by their parents, who know that they will be well looked after. The schools, the Vicar further states, have not only lived down, but in some cases have reversed, the adverse arguments and opinions that existed concerning them in some quarters at the start. In reply to the objection that the movement would still further drain available labour from the land, it is being demonstrated that a successful Nebenberuf is tending to keep the girls at home. They are all still to be found in the fields at the busy time, the school attendance rate falls rapidly at this season, and the bye-laws are framed with special regard to this agricultural demand. Another objection advanced was that the standard of the elementary school would

<sup>\*</sup> Karl Bittmann, Hausindustrie und Heimarbeit im Grossherzogtum Baden, p. 1083. (See Bibliography, p. 61.)

fall if the children worked extra hours, but this has also been disproved. Examination results show that the girls working in the lace school hold their own with those who do not, or with those who only work intermittently; they also do not compare badly with the results from the boys' side. The school attendance is very good, as might be expected from children showing the zeal, quickness, and intelligence which characterises the inhabitants of a healthy district. The third objection—that women would spend the money earned on finery and not on improving their economic condition-has also proved groundless, for the economic condition has distinctly improved. It is true, says the Vicar, that the girls spend a little more on dress and adornment, and that occasionally a father drinks his child's earnings, but to counterbalance this state of things, which is not peculiar to Oberpfalz, not only has a subsidiary calling been given to the neighbourhood, but, in the case of the poorer inhabitants, a trade has been provided which pays better than the weaving industry which it has replaced, though still leaving something to be desired in this respect. simplest form of lace-making is very easy to learn, the better class needs high qualifications. An expert worker can earn two shillings a day. Families, the Vicar considers, are better fed and clothed, it is oftener possible to call in the doctor when needed, taxes are more easily met, and there is more in the savings bank. The girls meet together to work during the winter months, and in neighbourly fashion chat and sing and recount the legends of the neighbourhood. Hundreds of little hands, no longer idle, put their mites into the savings bank, or earn a new Easter frock.\*

The fourth lace school exists at Nordhalben in Upper Franconia; about this school, however, the writer gained no

special information.

#### The State Higher Weaving Schools.

The State Higher Weaving Schools are at Münchberg in Upper Franconia and at Lambrecht in Rheinpfalz.† The former gives a thorough theoretical and practical training in all the many local branches of hand and machine weaving and embroidery. The instruction includes pattern drawing and repairing of machinery. The appliances are all of the newest kind. German subjects pay 100 marks yearly, and 25 marks extra for each additional kind of embroidery course taken. Foreigners pay 600 marks. Considerable money grants are made to poor students, who can furthermore obtain reasonable board and lodging at the school hostel. The chief manufactures are coloured cotton material, plush, woollen dress

<sup>\*</sup> Franz Lehner, Vereinigte Klöppelschulen der Oberpfalz. † Bayerische Landesgewerbezeitung, Jan. 1911, Heft I., p. 7, and March 1911, Heft V., p. 74, and Die Fachschulen für Textilindustrie. (Deutsches Fachschulwesen, herausgegeben von C. Malcomes, Heft II., pp. 45, 48.) (See Bibliography, pp. 59-61.)

material, towels, sheets, shawls, mercerised cottons, blouse materials, carpets, &c. The goods are slowly but surely

winning their way into public favour.

The School at Lambrecht, founded in 1850, was a municipal school until January 1911, when it was taken over by the State. It is especially for woollen and half woollen materials. The course for the training of manufacturers lasts for one year, that for training students as master-craftsmen and salesmen lasts for six months.

#### Schools for Ceramics and Glass.

The Royal Bavarian Trade School for Ceramics at Landshut on the Isar, Lower Bavaria. "-The old Pottery School at Landshut—the oldest Trade School of its kind in Germany was founded in 1873 by the Government of Lower Bavaria, aided by a grant from the Ministry of the Interior for Church and School Affairs. The school was very much extended in scope and converted into the existing institution for ceramics in 1903, very special attention being directed to instruction in art pottery and stove-tile manufacture. The Director of the Kgl. Realschule at Landshut was made the head of the Pottery School, which was transferred to the buildings of the Realschule, although it remains a separate institution. Following the tradition of the school that it has absorbed, the new institution aims at reviving the once flourishing but now decayed pottery trade by bringing instruction especially to bear on pottery as a home industry. It is hoped by the creation of a body of thoroughly trained youthful recruits to re-establish the ancient reputation of the neighbouring commune of Kröning, which possesses an indigenous refractory clay of a very high order of excellence and beauty—the place being known, in olden time, as a famous Hafnerstadt, or potter's town. The new pottery is designed to serve as an object lesson, proving that cheapness need not necessarily mean ugliness, vulgarity, and meaningless misplaced ornament, but that usefulness, beauty of form, and snitability of decoration can be combined and offered at a price that can compete with the inartistic and often less suitable goods which flood the modern market. The two words "practical" and "artistic" sum up the aim of all the work.

The School—which is State inspected and which works in connection with an expert Local Advisory Committee—comprises (a) the Preparatory School for Apprentices; (b) the Ceramic School proper for students who have had previous practical experience; (c) Continuation Classes for Journeymen and Master-Craftsmen enabling them to perfect themselves in modern progressive methods; (d) an Information Bureau and Experimental Laboratory, where elaborated recipes for bodies and glazes (Massen-und Glazur-rezepte) are placed at the service of the craft, as well as the collection of sketches, models,

x 12106

and moulds possessed by the school.

<sup>\*</sup> See Appendix I., pp. 51-53, and Bibliography, p 60.

The Information Bureau and the Experimental Laboratory are in much demand both by public bodies and private persons. Consultations are free except as regards postage, and can be made either personally or in writing. Experiments are charged for at low rates. The course in the Preparatory School lasts for two years. The entrance qualifications are, that the student must have passed through the highest class of the elementary school or have attended some school of higher grade, on leaving which he must have received a good character. The teaching consists of practical work in connection with the kilns and workshops, in modelling and drawing, and in instruction in trade subjects. Those attending the Journeymen's Course, which lasts a year, must already have passed the final examination in a recognised trade school for ceramics, and be possessed of good testimonials, and of the requisite preliminary practical knowledge. The courses for masterpotters are held as required. In the Trade School itself the teaching consists of two courses, each of a year's duration. Pupils are expected to take both courses, occasional exceptions being permitted in regard to special pupils desiring to undergo instruction in some particular branch. The entrance qualifications are successful attendance at the Preparatory School or two years' apprenticeship under a master-craftsman combined with good testimonials. Special notice is taken by the committee of those students who have served a three years' apprenticeship and who enter for the journeyman's examination; this previous experience is very strongly recommended. The school year begins on September 1st and ends on July 31st. The hours of attendance per week are forty-eight. During the Xmas and Easter vacations at the Realschule, and from the 14th-31st July the theoretical teaching is discontinued and the time thus set free is devoted to practical instruction. The moral and religious conduct of the school is in the hands of the management, and follows the general lines of the regulations laid down for municipal schools (Mittelschulen).

A thorough practical workshop training is given, combined with sound art teaching, and instruction in the geology, mineralogy, chemistry, and physics necessary for a right understanding of the scientific basis on which the industry rests. Health lectures and lessons in German, arithmetic, and industrial law also find their place in the time-table. An examination is held in all branches of the work, both practical and theoretical, at the close of the second year's course. Successful students may return under certain conditions for further instruction. Pupils who have passed through the school are fitted to take posts as master-craftsmen, modellers, draughtsmen, &c. The demand for workmen trained at the school from German States other than Bayaria and from abroad can only occasionally be supplied, as the majority of students attending are sons of Bavarian master-potters and on leaving the school resume work with their fathers. The fees for

German subjects are 20 marks (£1) a year, while foreigners pay 40 marks. The journeymen's class is free for Bavarians. Industrious and well-conducted German students of insufficient means are admitted free or at reduced rates. Necessitous Bavarian subjects can, if the available funds of the school permit, receive an allowance towards expenses in addition to remission of fees. Between the years 1903-1910 one hundred and twenty-nine pupils passed through the school, which year by year is showing a steady increase in point of numbers. In the report for 1910-1911 the number of pupils was 34, the highest yet reached. Nineteen of these were in the Preparatory School, twelve in the Trade School, and three in the Journeymen's Course. Of this total three were admitted at reduced fees, and twenty-one were admitted free. Nine of these latter received additional money grants, which in the case of the two Bavarian journeymen amounted to 1s. a day, and in the other cases to 6l. for the session.

For practical work the school possesses a large amount of hand-apparatus, such as a filter-press for making stove-bodies, &c., and various machines, including cylinder-mills for glazes and bodies, clay-pugs, glaze mills, &c. In the turning shop are seven potters' wheels and a number of smaller appliances. The machinery is driven by a six horse-power gas motor. There are also various kilns, such as a quick-fire muffle kiln, a large half-muffle kiln of seven cubic metres with two fire mouths, a fritt-kiln, and a large muffle for gold smelting, also some kilns for experiments in the chemical laboratory, including a Deville-

kiln and a Seger-Heinecke gas-kiln. Workshops exist for stove manufacture, glaze-making, moulding, turning, and plaster-casting. There is also a technical library and a collection of pottery examples. The pupils (under supervision) do the necessary kiln repairing, &c. They also have to furnish an exact calculation of cost with every article they make, a most instructive plan, which is also adopted by a few other schools. Nothing brings home the relative value of different articles in a clearer manner, though they may apparently resemble one another very closely to the superficial observer. The pottery made by the students at Landshut-like the produce of the other Bavarian trade schools—is exhibited and sold. It consists principally of plates, bowls, vases, jugs, kitchen crocks of all kinds, stove-tiles, complete stoves, &c. in glazed ware. The principal colours in which these are made are black, white, green, red, cream, brown, and violet. The ornamentation is bold, simple, sometimes intentionally primitive and naïve, and is executed in dots, lines, and dashes of full strong colour; animals full of character, birds, and conventionally treated flowers are also used. The application of underglaze is executed with a little vessel called a Malhörnchen or Giessbüchsen—this is generally of stone-ware with a quill or straw inserted at one side. The vessel is filled with "slip" or underglaze, and the potter uses it in the same free-hand manner

as a confectioner when he ices cakes, &c. Each separate article, therefore, which is turned out of the school bears the delightful impress of original hand work. The comb-cut (Kammschnitts) ornament, borrowed from the bookbinding trade and executed with a hog's bristle brush, is used with excellent effect, as are also many other old and half-forgotten methods of decoration. The school is proud of a luminous underglaze red, which is one of its specialities. During 1910 a large number of excavated pre-historic vases belonging to the Historical Association of Lower Bavaria have been restored at the school. Among the larger pieces of work executed have been some fine stoves, made to order, in black, violet, and blue tiles respectively. In the opinion of the art critic, Dr. Lory, this tiled stove work is of particular value as a corrective to the generally debased taste shown in the modern stove industry. No class of wholesale production "gets more on the nerves," he declares, than this. In England we have no stoves, but such an attack of nerves is quite intelligible when we contemplate our own cheap fire-place tiles and ornamental gas-stoves. Landshut also makes beautiful fireproof ware, in the shape of tea and coffee services, in various shades of red, brown, and chocolate, without any ornament except that of their own perfect form. The work is a high achievement, and one is reminded at once of the ancient vases of Rome and Greece. The exquisite bloom and warm glow of the material is delicious. Dr. Lory considers that it very closely resembles the lost secret of the "terra sigillata," and mentions that the Romans themselves prized the Bavarian clays from the southern slopes of the Danube. The later Roman "terra sigillata" was made at Westerndorf in Bavaria.

The school is proving a very great success. Men of all ages attend, and some quite elderly craftsmasters have passed through its classes. Pupils migrate and set up for themselves elsewhere and so are spreading the teaching of the school. One man in particular has founded a flourishing business in

Augsburg and has many pupils.

As regards the vexed question of lead glaze, the report for 1909-10 states:—"Since April 1910 the use of raw lead glazes " has been abolished in the school, owing to danger to health. "Only fritted-lead glazes are used, and these are entirely supplied in the most satisfactory manner by the new fritt-kiln in the school. Various experiments to produce leadless glaze " have been conducted during the past year (1909-10), and the " same fritt-kiln, with but small alteration, will lend itself very " readily to such production, in spite of the peculiar difficulties which leadless glaze presents owing to its lack of fluidity. It is hoped, however, that by alteration of the component materials this disagreeable quality may be obviated and a more fluid product attained. As soon as sufficient quantities of leadless glaze are procurable, nothing of much importance will stand in the way of carrying out the experiment. But, as regards experimenting with and introducing

"leadless glaze, there was, and is, the very great difficulty of obtaining one of the necessary raw materials, i.e., calcium borate (Borkalk), since the sale of this material is apparently so restricted on the part of either the producer or the importer that only small quantities at high prices are obtainable in the market." This is an interesting statement. The experience, however, in our own pottery district seems to be that even with an unlimited supply of easily obtainable borax, which our manufacturers consider to be more suitable to the purpose than calcium borate, a really satisfactory leadless glaze has not yet been discovered.

The writer is much indebted to the Director, Herr Wilhelm Rudolph, for permission to make free use of the reports of this

school, which can be obtained free on application.

The State Porcelain School at Selb in Upper Franconia. —The town of Selb is situated near the Bohemian frontier in the extreme N.E. of Bavaria. The school was instituted to train skilled art workers and thereby to influence and raise the standard of surrounding factory output. To this end it produces ornamental porcelain rather than articles essentially for everyday use such as are produced at Landshut. Although of only recent foundation, it is considered by critics to exhibit distinct individuality. Form and decoration are special features. Much attention is paid to colour schemes and to under and upper glaze painting. Animals modelled from life, ornamented partly in white and gold and partly with underglaze colour, form a speciality. Vases in white and gold are among some recent good exhibits. No home industry of the kind existed in the place previously.

The State School for Glass-making and Wood-carving at Zwiesel in the Bayerischer Wald.†—The school at Zwiesel is in two sections. The one for wood-carving has already been mentioned, the glass section is of recent date and was founded in The school is a municipal institution and receives support from the State, from the District of Lower Bavaria, and from other sources. Like the porcelain school at Selb, it seeks to train skilled artisans and designers for the industry, and to elevate the standard of local factory produce. Keeping to the local tradition of the Bayerischer Wald gold largely used in decoration. The school teaches glass painting, staining, etching, engraving, and cutting. It has invented an inexpensive method of etching, which is excellent and effective The designs are often highly conventional, at other times they are directly taken from nature. A large variety of vases, jugs, decanters, bowls, goblets, bonbon dishes, fruit stands, wine glasses, tumblers, &c., are made in white and coloured glass. Its amber glass and blue glass are specially noticeable.

† Articles by Dr. Lory in Kunst und Handwerk, and in Das Bayerland.

(See Bibliography, p. 60.)

<sup>\*</sup> Bayerisehe Landesgewerbezeitung, Jan. 1911. Heft I., p. 5. (See Bibliography, pp. 59-60.)

Bavarian Society for Folk Art and Folk Lore.

Turning from State to philanthropic effort as an agent for the furtherance of home industry, we find that private initiative and interest have taken active shape in the formation of the Bavarian Society for Folk Art and Folk Lore (Bayerischer Verein für Volkskunst und Volkskunde) which was founded in 1902. The Society, of which the headquarters are in Munich, publishes its own monthly magazine, and has a membership of 3,000. It comprises many well-known men and eminent artists who place their services at the disposal of the society, is recognised by the Minister of the Interior, and has—as one of its principal aims—the improvement of home industries. To this end it holds numberless small exhibitions of ancient and modern masterpieces to act as an incentive to endeavour, and to educate public taste against acquiescence in Dutzenware "We want the people to discover themselves, (warehouse art). "their own originality, creative capacity, past achievements, " and future possibilities . . . We will give practical help, " support, and advertisement to the work of all craft-masters "working in the sense of our programme." The society gives advice, takes great pains to get into touch with isolated workers, and gives opportunities for sale on business lines. One of its many-sided activities is the maintenance of a small shop for the sale of peasant work with a permanent exhibition attached, situated in the Prannerstrasse, one of the chief streets in Munich. Here the writer saw pottery, baskets, lace, embroidery, woven and stencilled linen, painted boxes, dolls in peasant costume, apostle spoons, tin lanterns, knitted stockings, and much else. One skilled worker—a gold embroideress of the now extinct peasant women's headdresses and the last of her trade—had adapted her skill at the advice of the society, and exhibited theatre scarves and medallions for ladies' belts and girdles worked in gold and silver.

Taking these exhibits, however, as a whole, one realised that in many instances the influence and training of such trade schools as the writer is describing is just what is most needed, coupled with help in the initial outlay as regards better material,

to bring the work up to marketable requirements.

Munich has been the scene of a large Exhibition of Bavarian Industries (Gewerbeschau) this year. In accordance with the insistance everywhere laid by the authorities on "quality"—"quality" in design, in material, and in execution—production on art lines was the leading characteristic demanded of all exhibits. Both factory and craft were represented as were also the home industries. All that was considered to fall short of the canons of true art was excluded.†

\*Bayerischer Verein für Volkskunst und Volkskunde, p 5. (See Bibliography, p. 60.)

<sup>†</sup>The Bavarian Schools here mentioned all exhibited. Each article from Enchenreuth and from the Lace Schools had a card attached stating the age of the worker, the time taken, and the wage given.

#### Trade Training for Women in Munich.

In regard to trade teaching for women in the city of Munich, the writer found that such provision distinctly lagged behind state effort in rural districts. Six of the newly-founded Bavarian provincial State Trade Schools described in this pamphlet are exclusively for women, but in 1910 the writer found no trade school for girls existed in the capital itself. Munich, like the rest of Germany, has hitherto concentrated its attention almost entirely on boys. The Continuation School for Girls, however, is being reorganised. After the year 1914 it will become a trade school, consisting of three divisions: (a) the domestic; (b) the industrial; (c) the commercial sections respectively. Excellent training in domestic subjects was, however, being given, at the time of the writer's visit, to girls of the eighth class in the elementary schools; this class is at present voluntary, but becomes obligatory in 1913. Six hours a week were being devoted to the same object in the abovementioned Continuation School, which also gave instruction of a simple kind in domestic, industrial, and commercial bookkeeping; while an attempt to start domestic subjects in the Municipal High School for Girls (Städtische Höhere Töchterschule) was likewise being made. It therefore seemed evident that the municipal authorities considered that domestic training should find a place in the time table of girls' schools of all grades.

Apart from domestic training, the facilities offered to women to specialise consisted, as far as the writer learnt, in their being admitted to the courses at the Industrial Art School (Kunstgewerbeschule), and in the fact that the Handelskammer and Gewerbekammer were both beginning to turn their attention to the training of women in the tailoring trade. A few girls, who had received their instruction apart from the boys, were being allowed to participate informally as skilled apprentices in the journeyman's examination (Gesellenprüfung) at the Tailoring Trade School in the Elisabethplatz. considerable strides have been made. At present (1912) there is a recognised journeyman's examination for women in millinery, in ladies' tailoring and dressmaking (Damen-schneiderei) and the Trade School for Hairdressers has also started an affiliated course for women. According to the regulations laid down in the latest Imperial Industrial Code (Reichsgewerbeordnung), after the year 1913 all girls, who intend to enter either of the two first-named trades, will be obliged to go in for this Gesellenprüfung. Only those who pass—having previously fully completed an indentured apprenticeship term of two years—will be permitted to enter for the further examination for Mastercraftsman (Meisterprüfung), and only those who have passed the Meisterprüfung will have the right to train apprentices (see p. 42 below). As yet only one tailoress-journeyman exists in Germany. A girl apprentice of

seventeen, after the obligatory two years' training, has been the first to pass the Gesellenprüfung under the new rules (Sept. 1912), and obtained the distinction of "good" from the Examining Board of the Master Tailors' Guild (Innung) at Göttingen.\* To meet these new conditions the Association for the Domestic Training of Women (Verein für hauswirtschaftliche Frauenbildung) in Munich has recently admitted indentured apprentices to its classes for ladies' tailoring and whitework, and these classes were turned into a recognised trade school in 1911 (see p. 22 below). Seventeen apprentices are at present (1912) preparing for their Gesellenprüfung. This Association, which till lately was a sub-committee of a union of women of the upper classes known as the Frauenverein, has been instrumental in calling several important social activities into existence, all of which originated in the Home for Working Women belonging to the Union, known as the Frauenverein-Arbeiterinnenheim. The sub-committee above mentioned, which more particularly dealt with the training of women workers, has recently completed its first year of independent existence, and issued its first annual report. So rapid has been the growth of numbers applying for admission to the schools of the newlyconstituted association, that the creation of some such centre as the Lette-Haus in Berlin is under consideration. organisation at present consists of the following departments:—(1) a Seminary for Training Teachers in Housewifery (founded in 1907); (2) a Housewifery school for girls of the educated classes (founded in 1907); (3) a School for training professional Cooks (founded 1904); (4) combined Household Courses for training domestic servants of all kinds (founded 1907); (5) a Trade School for mending, whitework, and tailoring (founded 1903); (6) the Committee for the Training of Domestic Servants (Domestic Apprenticeship) founded 1901. With the exceptions of Nos. 1 and 2, all these departments come legitimately within the scope of any description of trade teaching for women of the industrial classes. The developments in department 5 are of special interest.

School for Training Professional Cooks (Berufskochschule).— This school aims at training young girls as cooks, thereby providing them with an assured means of livelihood. The subjects taught are good middle class cookery (bürgerlichfeine Küche) in relation to health, new technical culinary methods, and modern marketing possibilities. The course lasts either three or four months, the longer period being strongly recommended. Seventy-three students attended last year, including one scholarship holder and three free students. A restaurant, open daily from 12.30 to 2 o'clock, is carried on in connection with this school and provides midday dinners at M. I per head. The pupils do all the cooking and serving. The number of meals served in 1911 was 18,794. The writer, who went over

<sup>\*</sup> Die Heimarbeiterin, Jahrgang 12 No. 10, p. 3.

the six departments organised by the Association, visited the kitchen and restaurant both here and at a similar school at Karlsruhe owned by the Association of the Women of Baden. In both places the restaurants appeared very popular. Karlsruhe the full number of possible customers came regularly, and any vacancies occurring were at once filled up. regular customers consisted of ladies in professions, civil servants (Beamten), &c. For servants producing their "Service Book" (Dienstbuch) and wishing to perfect themselves at the School, the cost of a three months' training is M. 75, and if they stay on for the fourth month the extra fee is M. 20. Girls just out of their Domestic Apprenticeship (see Department 6) only pay M. 45 for a three months' course. Higher charges are made for pupils not training professionally. On the expiration of the course the girls are found suitable situations free of charge. Courses are also given in invalid and special dietary cookery. At a course of the former kind held during the year, twelve Sisters of Mercy from the Municipal Hospitals attended. For the special dietary courses the advice of a well known specialist in digestive disorders at the University Hospital Clinic is freely asked and given. Regimental cookery classes are held, and during 1911, 157 soldiers from the Royal Infantry Bodyguard and the First Regiment of the Line attended and received instruction in the preparation of food suitable for both the privates' mess and that of the noncommissioned officers. In conjunction with the Society for Attracting Tourists to Munich and the Bavarian Highlands (Verein für Fremdenverkehr), the Association instituted a cookery class for the first time last year to train the wives and daughters of innkeepers and boarding-hourse owners. A charge of M. 20 per pupil was made. The institution of such a course seemed so desirable and so helpful in popularising country districts by adding to the comfort of visitors that the Ministry for Foreign Affairs (Kgl. Staatsministerium des Aeussern) voted the new venture the sum of M. 140. A large number of special courses are also held in advanced cookery, or in the preparation of some particular fruit or vegetable. Evening classes for beginners and for students wishing to return for additional instruction are also held. Particulars of the income of the school for the last year are not available, but in 1909 over 398l, was received in fees in the day school and about 112l. from extra courses. Money received for boarding the resident staff amounted to over 1881., and the restaurant brought in a little more than 900l.

Combined Household Courses for Training Domestic Serrants.

—These courses are of three months' duration for girls who have been out to service before, and of four months' duration for those who have not. Domestic servants of all kinds are trained. In spite of the shortness of the training very satisfactory results are obtained and the girls are in great request, especially by mistresses who have had previous experience of girls trained at

the school. The subjects taught are housecleaning, table laying and serving, household washing, &c. Trade teachers give instruction in machining, mending, cutting-out, and making underlinen and in hairdressing. The courses begin in September, January, and April respectively. Forty-three students attended in 1911; of these, thirty-nine obtained situations free of charge through the Association. The remainder returned to live at home. The girls come for the entire day and have their mid-day meal at the school, for which they pay M. 12 per month extra. The amount taken in fees for this course in 1911 is not available. Students' payments in 1909 amounted to 1251, and the cost of a three months' training was M. 45, and of a four months' training M. 55, and for girls just out of the domestic

apprenticeship M. 30.

The Trade School for Mending, Whitework, and Tailoring. (Fachschule für Ausbessern, Wäschenähen und Schneidern).— This school was very full during the past year. To meet the outside demand for skilled workers, the Association opened an Apprenticeship workshop for tailoring and whitework. was done with the permission of the Ministry for Foreign Affairs (Kgl. Ministerium des Aeussern) and in conjunction with the Chamber of Mastercraftsmen (Handwerkskammer) for Upper Bavaria. The apprentices bind themselves to a two years' course, which terminates in the journeyman's examination. The Handwerkskammer carries out the indentures. Instruction is given by teachers possessing the confidence of the mastercraftsmen and by skilled teachers trained by the Association. The response on the part of girls desiring apprenticeship has been much greater than was anticipated and has caused much satisfaction. Seventeen apprentices joined during the first year; twelve of these were admitted at reduced fees and three were granted free places. The number of students in 1911 was 362 (mending 83, whitework 140, tailoring 122, apprentices 17). The pupils' fees amounted to 2271, 5s. in 1909.

Committee for the Training of Domestic Servants (Domestic Apprenticeship).—In 1911, 241 girls of school leaving age and 142 mistresses applied to this department; 120 apprenticeships have been entered into, while twenty-six apprentices have left

their situations for various reasons during the past year.

Since the foundation of the various activities now working unitedly for the first time as an independent Association the attendance has been as follows:—

1. Seminary for Training Teachers in Housewifery (founded 1907): 32 students have gained the state teaching

certificate and 22 are at present in training.

2. Housewifery School for girls of the educated classes (founded 1907): 576 students have attended various courses.

3. School for Training Professional Cooks (founded 1904): 653 pupils have attended the day school and 1,516 evening and special classes.

4. Combined Household Courses for Training Domestic Servants (founded 1907): 204 pupils have attended.

5. Trade School for Mending, Whitework, and Tailoring (classes started in 1903; recognised as a trade school in 1911): 5,609 pupils have attended courses and 17 apprentices have joined the apprenticeship workshops.

6. Committee for Training of Domestic Servants (Domestic Apprenticeship), (founded 1901): 1,668 girls of school leaving age from the elementary schools have been apprenticed, and visited during their term of apprenticeship.

The Maria-Martha Stift (Evangelical) also trains young girls (boarders) for domestic service at a yearly cost of 6l. (120 mks.). The training consists of a two years' course—though a three years' residence at the school is advised if the accommodation permits. About 40 girls can be housed and trained at the school, which comprises a home for old servants, and also a hostel where visitors can be received and where the writer stayed for a night.

#### Wurtemberg.

Wurtemberg, like Bayaria, is thoroughly convinced of the soundness of the policy of educating independent craftsmen and aiding its home industries. It, too, has its State-aided trade schools for this purpose, and it is interesting to note the differences of method existing in the two kingdoms. As in Bavaria so here these schools are under the Ministry of the Interior; they are not, however, as in Bavaria, under the Department for Church and School Affairs, but under that for Commerce and Trade, a department of the interior peculiar to Wurtemberg. The principle on which the Government works is, that, before State aid is given, the commune (Gemeinde) must have proved the necessity for such a school by having started it; and after aid is given, the Gemeinde must continue in active co-operation. For girls, a State embroidery school exists at Wolfschlugen; for men, there are a very large number of weaving schools for training home-workers and small craftsmen.

The State Embroidery School at Wolfschlugen.—This school\* is situated in a small commune containing about 300 women engaged in white embroidery, and the industry consists mainly in working monograms and initials on house and body linen. The work is distributed and collected by women agents who have either a private connection or are in the employment of shops or wholesale houses. The school was originally started and supported by the communal district with State aid; the process is now reversed, and the Government has recently taken over the school and works it with financial aid from the

commune. The aim is to improve local work, so that betterclass orders may be given and higher wages may result. The instruction consists of a two years' course of seven hours a day. The fees for the first year's course are eight marks, for the second five marks. A special mistress instructs in embroidery, drawing, and design; a master from the elementary school teaches arithmetic, book-keeping, and commercial correspondence. During each course the members of the class all work collectively at the production of a single embroidered Tuch, that of the first course being simple, while that of the second course is elaborate. These Mustertücher, as they are called, resemble very large glorified samplers of fine white batiste, and are covered with initials and monograms. As soon as the girls are sufficiently advanced, they are allowed to work for orders while at the school. The materials are supplied to the girls by the women agents of the different shops and depôts; the girls receive direct payment for work done from the agent. Teachers recommend girls to employers, but concern themselves in no way with any money transactions, which are arranged entirely by the girls and the agents. Sometimes the agents supply the designs with the materials, at other times the girls submit designs to the employer for selection. The method of the school for obtaining designs is somewhat similar to that adopted by Frau Cornelius in connection with the Bavarian lace schools. Selection is made once a year by Government from designs drawn in the Frauenarbeitschulen (schools for women's work) at Ulm, Heilbron, Reutlingen, and Stuttgart, and a small sum is paid for all patterns taken. There are thirtysix Frauenarbeitschulen in Wurtemberg, of which these are the most important. All these schools are owned by the respective municipalities (Stadtgemeinden) in which they are located with the exception of the one at Stuttgart, which belongs to the Association of the Women of Swabia (Schwäbischer Frauenverein). This school has recently been recognised (bestätigt) by the State, which pays the teachers' salaries, thereby making them eligible for a Government pension. The teachers of the Embroidery School at Wolfschlugen are summoned once a year by the State to Stuttgart, interviewed and provided with new designs. Once a year a committee of three (composed of a Government inspector, some head official, and one of the directors of the Stuttgart (Frauenarbeitschule) visit the school, which is fulfilling its mission. The Government spares no pains, bears all cost, and is succeeding in teaching an industry and teaching it well. More girls are working for orders, a better class of order is being executed, and more money made. Nearly all the young women of the commune who contemplate this form of making a living are passing through the school, which is very successful from this point of view.

<sup>\*</sup> The Bavarian Embroidery School at Enchenreuth has deliberately discarded the system of working, "Mustertücher."

Lace industry only exists to a very small extent in Wurtemberg, and is found mostly in the Swabian Alps, where pillow-lace, similar to that made in Saxony, is found, but of simpler design. One lace school exists at a village in the neighbourhood at Esslingen. It is managed by private philanthropic effort and the State assists in the payment of the teacher.

#### Weaving Schools for Men.

As regards Weaving Schools for Men, a very large and important Textile school (Technicum) for training all classes of textile workers exists at Reutlingen. Apart from this, however, there are also the numerous small schools which we have already mentioned, of which the following examples are typical. The school at Sindelfingen\* is a State-aided, State-inspected communal school. It teaches the theory and practice of various technical methods of weaving in special relation to the many-sided textile industry of the district (Bezirk). The fee for training is 30 marks. A similar school exists at Laichingen, started with the object of instructing the many small independent linenweavers (Unternehmer) and workmen of the district. At Sontheim the school was started and is owned entirely by the State; in this respect it is apparently

an exception to the general rule.

Besides the direct method of education, the Government also employs other means of assisting small independent workers. The capital sum collected for the twenty-fifth jubilee of the late King Charles has been formed into an open Stiftung (endowment), and partly devoted to this object. Should the income of the Stiftung be exhausted, as sometimes occurs, the Government makes further grants when advisable. These are paid through, and often at the request of, some local authority, clergyman, or responsible crafts-master. It is not required that they should be refunded; they are given as business capital, to be expended on such plant (machinery, tools, materials, &c.) as may be needed to give the applicant a fair start or advisable extension in business. The industries thus supported are:—
the making of metal purses, brushes, mousetraps, and eggwhisks, baskets, corsets, paper flowers, weaving implements, and millstones; also white hand and machine embroidery, lace, shirt-making, knitting, slipper-making from remnants (Entschuhmacherei), weaving of stockings and packing-cloth, and sorting of ornamental feathers. Returns of all these grants are kept by the Government.

#### BADEN.

Baden supports the spinning industry in much the same way as is described above in Wurtemberg. Classes are

organised among girls who have left school by the Association of the Women of Baden. Twenty such classes were held in 1909. Their Royal Highnesses the Grand Duchess, the Grand Duchess Luise, and the Princess Max of Baden encourage the work by presenting prizes in the shape of spinning-wheels and apparatus. The State (through the Association) gives grants, which amounted in all to the sum of 310 marks in 1910, principally for providing poorer girls with hemp. The opinion of the Association is that money is still to be made by this form of industry in spite of all that has been said against it.\*

#### SAXONY.

Saxony, like Bavaria, spares no pains and expense to develop its peasant lace industry. In the Christmas Exhibition (1910) of Folk Art at Wertheim's, in Berlin, these two States had a very beautiful and wide range of exhibit. The Saxon lace schools number twenty-eight, and are supported some by the town, others by the village, or the commune in which they are They are State-aided to the extent of the teacher and the room being provided. The children enter the school, as a rule, at six or eight years old; one girl to whom the writer spoke had a younger sister who began the work at four years old, while she herself (an exhibition worker) began at twelve years of age. Lace-making, she said, could not be begun too young, if the fingers are to be really supple. In the elementary stages she, like the Oberpfalz authoritiès, said that the trade was very easy to learn. The pick of the children from these twenty-eight schools—numbering in all about six yearly—pass on to the Royal Technical Pillow Lace School (Königliche Spitzenklöppel-Musterschule) at Schneeberg, in the Erzgebirge.† The remaining children who are not selected find employment in working for agents. The aim of the school at Schönsee is the training of teachers for other lace schools and of competent workers for the industry. Instruction is given in all branches of the trade, and is most thorough and up-to-date in every respect; nothing is omitted that can improve either design or method. Every description of lace is made on the pillow, this school and the school at Vienna being the only two places in which one special variety is at present produced. The school is divided into two sections, one for pupils training as teachers, the other for lace-makers attending for improvement. Division I. is again subdivided into three classes; the division consists of nineteen pupils, the average being six in each class. Six pupils leave, and six are added yearly.

<sup>\*</sup> It may be noted that spinning wheels were seen by the writer in other German States at schools for women's work, also in Austria at the Agricultural School at Klagenfurt and on a Carinthian farm, where the women farm hands spin during the winter months.

† See Appendix I., p. 54.

Pupils are paid for work done, and are trained to the highest point of perfection possible. The tuition in Division I. is free, while in Division II. the fees are five shillings for a course of one hour weekly. At the conclusion of the full three years' course in Division I., and after passing the leaving examination, the pupil is given a certificate entitling her to teach.

# Hesse-Nassau (Prussia).

The Royal Trade School at Schmalkalden for Small Iron and Steel Ware.\* Under the Royal Prussian Ministry for Trade and Commerce (Ministerium für Handel und Gewerbe).-The Schmalkalden school is situated in one of the valleys of the Thuringian Forest and lies far removed from the stir of big cities and the rush of modern life. The trade of the town and district has centred for a thousand years in metal-work. In all probability, as far as Germany is concerned, the industry first arose at Schmalkalden. The surrounding mountains yielded rich ferruginous earth, the forests provided charcoal, and the brooks supplied water power. Smithies and furnaces existed everywhere. Excellent charcoal-smelted raw iron and forgable refined iron were made. Skilled workers manufactured armour, weapons, and all the metal ware most highly prized in olden days. During the sixteenth and seventeenth centuries the industry throve. In a writ of outlawry by the Emperor Ruprecht, mention is made as early as A.D. 1400-10 of the Schmalkalden steel, sword, bell, sickle, and knife makers. Decline, however, set in with the pillage and devastation of the Thirty Years' and Seven Years' Wars. Later came the depressing influences of interrupted land and sea commerce during the French Revolutionary Wars. Finally, the industrial revolution all but extinguished the last remaining spark of the once famous industry. By it the entire methods of the trade were changed, and the seat of the production of raw material was transferred to the Rhenish Westphalian provinces. These provinces and the United States of America are at the present time the two great rivals of Schmalkalden trade.

To-day the industry is once more reviving, and gives employment to both factory workers and outworkers. It forms the chief calling of the latter, most of whom combine the trade with a little agriculture, which occupation falls mainly on the women of the family. This combination of industrial and agricultural activities is recognised locally to have both its advantages and disadvantages. The advantages are that in times when trade is bad families are protected from acute want by being able to produce the chief necessities of life for

<sup>\*</sup> The following account is mainly abridged from reports and articles written by Herr Beil, the Director of the School, and most kindly placed at the writer's disposal. (See also Appendix I., pp. 54-56, and Bibliography, pp. 60-61). (Deutsches Fachschulwesen, herausgegeben von C. Malcomes, Heft I. p. 59).

themselves. The disadvantages are that the workers fail to estimate the exact cost of production. By placing this too low they undercut the manufacturers, who have calculated the price more exactly, and who are already in keen competition among themselves. Women sometimes work at the trade, but only undertake such light portions as cleaning, packing, or working the fly-press.\*

The larger factories are founded on up-to-date lines, and are successful both as regards excellence of output and commercial success. The chief articles manufactured are spoons, curry-combs, various drills, awls, and a large variety of other

small tools

Many of the smaller industries, however, still keep far too closely to the old traditional methods of hand-work. The people are deeply attached to the soil, are strongly conservative in methods, and until recently have looked on modern inventions with mistrust and even with defiance. "Few go "out into the larger world. For generations son has succeeded father and grandfather at the same workshop bench and "continued to work on exactly the same lines as his predecessors. If any ventured afield he found the world had "no room for himself and his limited knowledge, and he soon "returned to swell the number of muscle-machines, and to

' eat the lifelong bread of penury."

The manual dexterity of olden time has all but vanished, and in these small workshops the goods produced are of poor quality, are made by an unnecessarily large expenditure of physical strength, and have to be thrown on the market in considerable quantities if they are in any way to pay the maker. One result of modern conditions is to be seen everywhere, and that is the endless subdivision of labour. This, as in England, is on the increase. "The manufacture of each article" is now a separate trade. These articles are again subdivided " into special patterns of that one article. There are awl-smiths and awl-polishers, and the same subdivisions apply to the makers of pincers, pliers, drills, corkscrews and much else. Year in and year out the workers busy themselves with a small portion of a small whole in endless monotony. That such work can only lead to a hopeless arrest of intelligence and to further " industrial crises is but too clear. Body and mind are alike stunted and nothing can be accomplished in these go-ahead days with stunted intelligence."

In 1848 the Hessian Parliament (Kurhessische Regierung) ordered a commission of investigation into the question, and in 1849 the District Government voted 2,000 thalers (£300) for

† Dr. Beil's article in Zeitschrift für gewerblichen Unterricht, XXVI. Jahrgang, 1912, Nos. 19 and 20. (See Bibliography, p. 60.)

‡ Ibid.

<sup>\*</sup> Nippers, pincers, pliers, tongs of all kinds, nails, spanners, hammers, wood-drills, screw-drivers, and all the tools used in saddlery and boot-making, are amongst those made in the district.

the erection of a model forge and grinding works. The people

objected to the innovation and petitioned against it.

Such was the condition of affairs when the Prussian Government in 1902 founded the present school. It is, therefore, in its tenth year, and, like the Bavarian schools, is still in the making. The same authority has instituted similar schools at Iserlohn, Remscheid, and Siegen.\* Each school is being developed to meet the special needs of the district in which it is placed. As in 1849 so in 1902, the new venture at Schmalkalden was at first mistrusted by the people, who fancied that the State was intending to enter the arena of industrial competition. At the present time, however, they recognise more and more widely that the school stands in their midst to counsel, teach and co-operate, and to further their interests in every possible way.

Signs of awakening from the dead past are all around. Conservative prejudices are being overcome. Labour-saving and time-saving appliances are gradually making their appearance. Machinery driven by electricity now often replaces brute force, and the influence of the school is telling on the economic condition of the workers. In the last ten years the tax returns have increased 80 per cent., and the savings bank deposits have doubled. Much still remains to be done, and the school is facing the task, in spite of the many difficulties yet ahead, with keenness, hope, and courage, inspired by the success it has

already achieved.

The school buildings, which cover 860 square metres, were erected by the town at the cost of 130,000 marks (6,500l.). The school trains both for factory and home work. The Prussian Minister for Trade and Commerce and the Governor at Cassel are the central authorities. The management is vested in a Board of ten Governors. The teaching staff numbers seven, inclusive of the district medical officer, who lectures on health and first aid. The building contains:—a power station, the factory workshop, the locksmiths' shop, and departments for forging, grinding, buffing, polishing, tempering, and electroplating. Only model appliances and tools are used, the special aim being to surround the pupils with the best examples only, in order to embue them with a love for good workmanship, order, and suitability of appliance. During 1910 new plant was installed, for which a Government grant of 14,700 marks (735l.) was obtained. The additions include a forge for drop-hammer dies (Gesenkschmiede für Fallhammergesenken) and a model grinding workshop.

The yearly instruction given at the school consists of :—

1. A course of a year's duration for young men and boys.

(Two to three years are necessary to fully complete the training.)

<sup>\*</sup> Die deutschen technischen Fachschulen. (Deutsches Fachschulwesen, herausgegeben von C. Malcomes, Heft I., pp. 44, 57, 59. See Bibliography, pp. 60-61.)

x = 12106

- 2. Evening and Sunday classes for older workmen.
- 3. A short course for teachers in Trade Continuation Schools. (This last course is arranged by order of the Prussian Minister for Trade and Commerce.)

The School Course for Young Men and Boys.—The helping hand was first stretched out where it was most needed, in the building up of a body of skilled young workers. The course for young men and boys was therefore the earliest to be started. Within well-defined limits it gives a careful and varied training in the local industry. This training is imparted either by the factory teacher or the master-craftsman according as to whether factory work or handicraft is to be the future occupation of the pupil. Trade drawing and business methods as applied to industry are also taught. The school, in addition, offers a good practical and theoretical grounding to those who, later on, wish to turn their attention to mechanical construction. The course is conducted in two divisions—a higher and a lower. Students are admitted yearly at Easter. The school year averages 41 weeks, each comprising 27 hours of practical work and 24 hours of theory and drawing.\*

(a) Boys enter as soon as they leave the elementary school and are taken without previous experience, the school workshop course being recognised as equivalent to serving an apprentice-

ship under a master-craftsman or to factory experience.

(b) Young men are also eligible who have have had some vears' experience under a master-craftsmen in the locksmiths' and tool-making trades. Entrance qualifications further consist in the successful completion of the elementary school course, the possession of a good leaving certificate or its equivalent, and a good health certificate. Applicants must likewise show suitability for the work. The Director decides in doubtful cases. Pupils who have received a more extended education are excused from those subjects in which they have already attained the standard required by the school. The fees for the course amount to 60 marks in the case of Prussian subjects, to 160 marks for non-Prussian German subjects, and to 300 marks for foreigners. Cheap railway tickets and lodgings are obtainable. The cost of the necessary outfit (books, clothes, mathemetical instruments, &c.) amounts to about 60 marks, and the half-yearly payment for appliances averages 10 marks.

As poverty reigns in all these Thuringian valleys, by far the larger number of boys have to be assisted by money grants, and by remission of fees in whole or part. The grants come from various sources, such as a State fund, endowments, private donations, and local funds. The school also devotes 10 per cent. of the payments in fees to this purpose. An endowment of 14,000 marks was given by a local nail manufacturer lately deceased, the interest arising from the fund being specially

devoted to the training of the sons of workers from his own district. In 1911 thirteen pupils received grants varying respectively from 5l. to 21l. The half year's fees also were remitted or reduced in nine cases.

These grants and remissions are at present available for two years only. But it is felt that the training to be really satisfactory should last for three years. This lengthened period, however, presents many difficulties, the chief of which is the poverty of the pupils. If it were possible for students to earn something for work done during a third year of tuition the financial difficulty, it is stated, might be largely met. Also by so doing the problem of the relation of work to wages would be introduced into the School workshops in a very instructive form, and one which would add further reality and incentive to

the pupils' efforts.

The total number attending the school during the year ending Easter 1911 was forty-nine. Seventeen of these were in the upper and thirty-two in the lower division. An analysis of the previous schooling of the students in the second division yields the following result:—Twenty-nine came from elementary schools, one from a *Gymnasium*, one from an *Oberrealschule*, and one from a *Gewerbeschule*. Four students had attended continuation schools. All these pupils were training for craft or factory work with the exception of one, who intended to become a teacher. The ages of pupils in the class were as follows:—Six were 14 years of age, eleven were 15, ten were 16, four were 17, and one was 25.

The course closes with an examination held by special order of the Royal Examinations Commission, for which successful pupils of the first division are eligible. Successful candidates are exempted from the journeyman's examination, and may also be exempted from any further technical examination during the period of military training. The examination is both oral and written and includes a drawing test. Each candidate has also to manufacture some complete article (entirely without

assistance) from his own detail-drawings.

At the end of the course the boys go into the world to seek their fortune. Some find places in big factories, but it is becoming apparent, as time goes on, that the majority do not remain long away from their native place. Their homing instincts are too strong and they soon return to the old fireside. It is through such returning workers that it is hoped the lump will eventually be leavened, and the fame of olden days once more return to Schmalkalden. The school keeps in touch with its old pupils, asking for news of each on the anniversary of the day they leave.

It is not the intention of the school to fit its students for the office stool. All its aims are concentrated on awakening love and respect for the blue apron and the workman's bench. To this end practical instruction is given in the latest methods of skilled craft, the pupil is not only taught to make tools, but

taught to make, use, and repair all the best special modern labour-saving appliances that he himself needs to produce articles of good quality (Qualitätswaren).\*\* Such tools and appliances are alone selected as are especially instructive and employed in the best methods obtaining in the industry. It is realized that good articles sold at a relatively low price are the only ones, which at the present time, can secure a satisfactory market. The only means by which this combination can be achieved is by insistence on skill in the worker combined with a wise use of time and labour-saving tools. These united factors are also felt to be the best weapons wherewith to combat the soul-deadening monotony of specialisation in detail and the consequent limited efficiency of so many present day workers.

The subjects taught are locksmiths' work and forgework, tempering, hardening, electro-plating, and the manufacture of such tools and machines as lathes, planes, milling and grinding machines, &c. Older pupils can learn something of the working

of the engine, dynamo, and switchboard.

The work is carefully graded in an ascending scale, and has to be thoroughly mastered step by step. Each pupil's individual powers are developed as thoroughly as possible. The practical work is at first done from models; after about nine months' training the pupils are advanced enough to work from their own detail-drawings. No one is ever merely trained to make special parts of any one article only. Each pupil makes the tool or appliance throughout. The teacher supervises the handling of tools and machinery. A thorough and critical discussion based on the theoretic teaching takes place between master and pupil as the practical work progresses. The teaching given to those possessing previous experience is regulated as far as possible to meet special requirements and existing knowledge.†

The drawing instruction, also, is none of it useless. It all has a definite workshop bearing, and is done entirely from models. The branches taught are technical freehand drawing, projection and isometric drawing, and workshop sketching. As the drawings have to stand the test of articles subsequently being made from them, any error and lack of clearness shows up inevitably. The connection between the workshop and the drawing lesson is very fruitful. The Director feels that the extraordinary value of drawings produced by the pupils as a basis for their own practical work is only just receiving the true amount of special recognition which it deserves. With the model drawing made at his leaving examination, for the tool which he makes (entirely without assistance) at the same

examination, the pupil attains to his high-water mark.

† For excellence of work done, see illustrations to Dr. Beil's article in

Zeitschrift für gewerblichen Unterricht.

<sup>\*</sup> Dr. Beil's article in Zeitschrift für gewerblichen Unterricht, XXVI Jahrgang, 1912, Nos. 19 and 20.

The teaching of mechanics is on the same principle. Beginning with the workshop as the object lesson, the pupils are encouraged to use their eyes in regard to the surrounding machinery. They are invited to strive to realise its methods and uses, and to enter into a critical inspection of its construction. As far as the principal parts are concerned, the pupils take the machines to pieces and put them together again. This enables them to see their construction and working at close quarters. It also sharpens their perception of the best machines to employ, and trains them in the more important processes of the manipulation of mechanism. The theory lesson is only intended to supply what cannot be taught in the workshop.

In all things the pupils are trained to use their minds, to observe carefully, to draw sound conclusions, to master the work

thoroughly, and to leave no points hazy and undefined.

Excursions are made during the course to large factories in Schmalkalden and other towns such as Erfurt, Leipzig, Gotha, &c., under the leadership of the Director or a member of the

teaching staff.

The Evening and Sunday Classes for Older Workmen.—This course, to which small-iron workers, tool makers, mechanics, journeymen, and master-craftsmen are admitted, is held during the winter months from October to March. It is always well attended and successful. Forty members joined the course which ended in March 1911. Fifteen of these came from Schmalkalden and the remainder from the neighbourhood. The analysis of the status of these students is as follows:—Independent craftsmen, 3; sons working with their fathers, 5; men engaged in workshops, 11; men working in factories, 20; salesmen, 1. The ages of the men in this class varied from 18 to 38 years.

The practical workshop instruction is given three times weekly from 7.30—10 p.m. As much regard as possible is paid to individual wishes. The students are grouped according to their previous experience and the subjects which they wish to study. The training given in a recent course consisted of:—
1. Lathe work for beginners and improvers; 2. Milling and grinding; 3. Precision filing; 4. General locksmith's toolmaking; 5. Manufacture of cutting-tools; 6. Steel graving in

relation to drop-hammer dies (Fallhammergesenken).

The drawing classes are held on Sunday morning from 8-12, with an hour's interval for divine service. The demand for projection drawing last year was particularly great. Twelve out of the forty students took drawing only, eight took workshop

instruction only, and twenty took both.

The tempering school and experimental die-sinking (Gesenkschmiede) are of the greatest importance as regards the direct furtherance of home-industry and were specially founded to meet a pressing need. They were imperative if the old-fashioned handwork of the district was to hold its own against the universal employment of highly developed machinery in use

in the Rhenish Westphalian Provinces and in America. Men studying in this course who wish to make special tools for their own use may do so if they are sufficiently advanced, but must pay for the material. The teacher in such cases instructs, advises and lends a helping hand, if need be, in the manufacture.

The students work with zeal and industry. The results give every cause for satisfaction. The economic significance of the work is great; not only does it exert a direct influence on the men who attend, but they carry away with them the knowledge of sound modern methods and spread it over the countryside. The school is thus becoming widely known and appreciated. The same students return (in spite of the heavy sacrifices entailed) for as many as three or four half-yearly

courses of this continued evening instruction.

The Technical Advisory and Inquiry Bureau is also doing good work, and proves how widely the school influence is penetrating. The Bureau was originally started because it was observed that important questions of technique raised by local workers often went unanswered, there being no expert councillor at hand to give the necessary advice or information. The result was that money was often sadly wasted and a mistaken choice of appliances and technical aids made. All inquiries are warmly welcomed at the Bureau, information being given to all, employer and employed alike, free of charge. The Director is the advisor. Many questions are asked regarding new developments, special tools, varying methods, means of construction, or where to obtain desired plant. Should the question concern some special tool or appliance likely to prove of general interest, and with which the school is unacquainted, the teachers themselves, if possible, work out the design. This is given to the head boys of the day school, who manufacture the object and put it to practical test. If satisfactory, the inquirer is allowed the model as a pattern should be wish it. Many such original experiments can be seen in the school collection. Much technical experience has been collected in the various departments in the course of practical work; this has been especially the case in the experimental laboratory, in the building of the school, and in the installation of the existing plant. Knowledge, which has not as yet found its way into existing text-books, of which even skilled workmen have had little or no experience, and which is not likely to be found elsewhere than at the school, is being accumulated, and all this practical experience stands at the service of inquirers.

The school possesses a good collection of instruments, and appliances relating to physics, mathematics, chemistry and electro-plating. A large number of models have been bought or presented to the School. Materials, and articles in various states of manufacture are shown. There is also a large lantern

and a fine collection of slides.

Both day and evening pupils give a combined annual exhibition of work. This excites much interest, and town

and country people attend in large numbers. Prizegivings take place in connection with both classes.

The Yearly Course for Teachers in Trade Continuation Schools.—A course of this kind has been held at the School for the last four years by direction of the Prussian Minister for Trade and Commerce. The course for 1910 lasted from July 25th to August 13th. It was attended by 18 teachers drawn from the provinces of Hesse-Nassau, Saxony, and Brandenburg. The instruction was in the hands of the Director, and concentrated on the expert production of sketches, and detail-drawings of simple and typical objects connected with locksmiths' work in relation to building, machinery, and tool-making. A thorough preliminary explanation was given regarding the use of the objects sketched, the material of which they were made, and the method of carrying out the manufacture.

In the second and third week of the course, an hour daily was spent in watching the pupils of the first division in the Day School give a practical workshop demonstration bearing on the expert theory that had just been the subject of study by the

teachers in class.

During 1910 a Conference was held at the school. Experts attended from Cassel, Erfurt, and Münster; the Chairman, from Berlin, being a Member of the State Office for Provincial Industries. The teachers' training class, its range and method, formed the subject of discussion.

# ALSACE-LORRAINE.

The home industries of these provinces suffered severely at the time of the Franco-German War, those which owed their existence to the French market being driven over the frontier by the tariffs imposed after the annexation. The principal trades affected were straw plaiting (chiefly the plaiting of palm and panama hats), and the pottery industry.

# The Pottery Trade.

The pottery trade, however, under the influence of the Strassburg Industrial Art School, is showing signs of reviving prosperity. In the immense forest district of Hagenau, potteries have existed since Roman times, continuing throughout the Middle Ages. It is essentially a family industry, and men, women and children have all worked together at it from time immemorial. At present there are about one hundred and fifty small businesses, employing about two hundred people. Attention has lately been turned to the produce and perfecting of architectural ornament (Architectur-Keramic) and the industry shows signs of developing on these lines. Two state-aided industries exist: one for painted pottery at Suffelnheim, the other for stone-ware at Betschdorf. Jugs, tankards, pots, &c., coloured and ornamented with beadings and bosses and

somewhat resembling Doulton ware, are the chief produce of the former district. The Giessbüchsen as described in the account of the Pottery School at Landshut (see above, p. 15) are also used by these potters. There is no teaching course or school of any kind. When instruction is desired, application is made by the potters to the Municipal Industrial Art School (Kunstgewerbeschule) at Strassburg and a teacher is sent to the locality. One or another of the teachers goes every week or two and the State pays them for all such extra work. The instruction consists largely in explanation, demonstration, thorough investigation into the nature of the local clays, and into the suitability of various glazes, plant and firing methods, also in advice as regards the newest type of kilns, &c. The teaching is free. Designs are provided by the school, which is having a great educational influence in the two provinces.

# Lace-making.

The making of Venetian needle-lace (as taught in the lace school at Burano\*) has lately been introduced into Selz and the Weilertal (Val de Ville) by the interest, energy, and influence of the Baroness Zorn von Bulach.

Finding the peasantry poor, the holdings small, and the factories few and far between, the Baroness decided upon introducing a home industry among the women to improve the economic condition of the inhabitants. After much thought and investigation she engaged a teacher trained at the School for Women's Work (Frauenindustrieschule) in Strassburg and installed her for some months in the Val de Ville, the girls from the surrounding villages coming to her for instruction. The type of lace selected for manufacture was intentionally one that was entirely new to Alsace, and furthermore was one that was made nowhere else in Germany. The first course of instruction was started in October 1909. After some months of careful training the girls gradually learnt the new industry and were able to work at it by themselves, only coming to the teacher for a weekly lesson and for fresh designs. The Government of Alsace-Lorraine granted the Baroness a subvention to cover the expenses of this preliminary course. At the present time the Baroness meets the current expenses by retaining for this purpose 10 per cent. of the money made by the sale of The girls live and work at home, which makes this

<sup>\*</sup> This school was founded with funds collected to relieve the acute industrial distress prevailing in 1872 among the fishing population of the island. It has most successfully revived an ancient industry of which the only exponent—an old woman of over seventy—at that time survived. Not only Burano point, but "laces of almost any other design or model are now undertaken." (See "A History of Lace," by Mrs. Bury Palliser, entirely revised, re-written and enlarged under the editorship of M. Jourdain and Alice Dryden. With 266 illustrations. London: Sampson Low, Marston & Co., 1902, pp. 59–62; also "Technical History of Venetian Laces," by Urbani de Gheltof, translated by Lady Layard. Venice, 1882.)

possible, and the arrangement was made with their consent. The money thus set aside covers the expense of continued tuition, fresh designs, and the travelling expenses of the teacher. The scheme is still in its infancy and experimental. To find an assured sale for the goods produced is the chief problem at present confronting the venture. So far, the Baroness considers that she has been very fortunate, the lace having found appreciative and ready purchasers. She is encouraged, therefore, to hope that an enterprise started in the first instance as a charity will continue to flourish in the future purely on the strength of its own merits. In time, lessons in drawing will be added if possible, thereby giving the workers a more comprehensive training. The lace produced is suitable for trimming blouses and church and table linen, &c.\*

Other home industries of the provinces are:—Linen and cotton weaving, coarse wood-ware (such as shoes, shingles, &c., made in the Vosges and Dragsburg), white embroidery, clothing and whitework for export, and saddlery. During the winter months 20,000 women and girls, earning 1,000,000 marks, work at hair-net weaving here and in Switzerland, the export market of the world being Strassburg. Funeral bead wreaths—always most inartistic productions—are made at two or three centres, the coarse beads coming from Bohemia and the fine from Italy. The writer being in Strassburg on All Souls' Day, saw shop windows full of them, the price in some cases being as high as

18 marks.

# TRADE UNION OF THE WOMEN HOME WORKERS OF GERMANY IN THE READY-MADE CLOTHING, UNDERWEAR, AND ALLIED INDUSTRIES.

The preceding pages have dealt with industries carried on as subsidiary or principal callings, and worked in many cases in conjunction with small holdings in rural districts. It may now prove of interest to turn to a class of industry which for the most part receives no aid from agriculture, and to give a short account of the efforts of the "Trade Union of the Women Home Workers of Germany in the Ready-Made Clothing, Underwear, and Allied Industries" (Gewerkverein der Heimarbeiterinnen Deutschlands für Kleider und Wäschekonfektion und verwandte Berufe), to improve the condition of town out-workers. Even the Social Democrat sees the value of home industry when coupled with peasant proprietorship, but in the case of the landless home worker he sees no single point to redeem it, or to induce him to countenance its continuance. The cry, therefore, of the powerful Social Democratic Unions to-day is, "Away with home industry, with " its impossible conditions and its methods of undercutting other wage-earners." In some of these trades, trade con-

<sup>\*</sup> Further information concerning the industry can be obtained by those visiting Strassburg, from Fräulein E. Retting, Fitzgasse 11, and samples of work can be seen.

ditions have been steadily going from bad to worse, notwithstanding philanthropic effort and public interest and inquiry. In the important Berlin blouse industry, for example, wages have sunk continuously since 1896, and the trade has lately been in the throes of a crisis which employers, middlemen, and workers alike deplore, and which threatens its very existence. In spite, however, of the bad conditions so widely obtaining, women like Fräulein Behm and Fräulein Dyhrenfurth, who know their subject thoroughly, and may be compared to Miss McArthur, Miss Tuckwell, or Miss Black in England, maintain that there is still room in the world of industry for these women workers, if education, legislation, and

organisation be brought to bear on the problem.

The Union here mentioned is one of the Christliche Gewerkschaften Deutschlands (Christian Trades Unions). These Christliche Gewerkschaften are one of the three great divisions of German trade unionism, the other two being the Social Democratic and the Hirsch-Dunckler Unions. As an organisation the Gewerkverein der Heimarbeiterinnen Deutschlands is in its twelfth year. It numbers 60 groups and over 8,000 members, considerable advance in centres and memberships having been made during the last year. Some of its most interesting developments are scarcely two years old. Women of the more educated classes join its ranks and assist their less leisured sisters in organising groups and initiating developments. If contrasted with the other great organised bodies it is of small numerical strength, and some may say without much weight when compared with the enormous mass of unorganised home industry existing. Its leaders, however, feel, considering what has already been done, that they are on a path which may lead to big possibilities and eventual success, in spite of the many difficulties and disillusionments which they feel still lie ahead.

The main object of the Union is to fight unfair contracts and unskilled labour, *i.e.*, to raise wages and increase efficiency. The chief difficulty in connection with the latter aim is that there is little room for skill when speed is the great requisite. Endeavours are made in the slack season of seasonal trades to teach a second branch of the same trade, so that the new work

may dovetail with the learners' own occupation.

From the very beginning of the movement it was a constant experience that bad wages were the result of bad work, and that the bad terms accepted by the indifferent workers forced down the wages of the better workers of the Union. "Often the small "earning capacity of the indifferent home-worker stands in direct relationship to her insufficient training, a thing for which she herself is not responsible." The gist of the report of more than one group-secretary is to the effect that it is only by the sacrifice of time and money, of which the worker has little

<sup>\*</sup> Die Heimarbeiterin, October 1911, Jg. 10, p. 3. (See Bibliography, p. 61.)

or none to spare, that the necessary training can be acquired, and it is only when such training is acquired that she can demand higher wages and secure economic betterment. Education is therefore one of the leading aims of the Union. The first attempt in this direction was to instruct individual workers of the indifferent type, and so enable them to attain to the higher rate of pay and to become satisfactory members of the Union. Other workers, to whose health the treadle machine was injurious, were also instructed in some more suitable branch of industry, such as cravat sewing or in the preparation of incandescent gas mantles. It was felt, however, that such isolated instruction far from covered the necessary field, and in 1908 the Berlin branch started regular classes with financial help from Frauenhilfe, a society for assisting poor women. Each class comprised twenty-four women, under the supervision of two skilled forewomen. "The experiment was attended with the best " results. From that time forward the question of raising "wages by increasing efficiency could not be allowed to rest." The Union declared that the success of the attempt justified their assertion that home industries of this kind had an economic right to exist. In 1910 the Berlin Central Office opened a workshop of its own, not as relief work for the unemployed, but as a training school for the technical education of workers, and for the execution of higher middle-class orders. The Union group at Stolp, in Pomerania, next started a similar training workshop and sale room for the white embroidered edging (known as "Swiss work") which is the speciality of that place. Halle, Hanover, Frankfurt-am-Main, Posen, Königsberg, Elbing, and other groups opened similar departments in quick succession. In more than one town the municipal authorities, realising that the raising of the efficiency of badly paid workers meant the lessening of poor relief, have provided free accommodation and given grants in aid, to facilitate the Union in starting training depôts. In several instances private persons have come forward in like mannèr.

The classes for instruction, which appear to be extremely successful everywhere, consist of tuition in tailoring, in children's clothes, and in blouse making, in the manufacture of household and body linen, in white embroidery, expert repairing, cuttingout, pattern drawing, millinery, and lace making, according to the special industry of each locality (see Appendix II., pp. 57–59).

The towns of Halle and Posen have opened the doors of their Gewerbeschulen (technical schools) to members of the Union, recognising that such an extension falls within the sphere of

activity for which these schools were intended.

At Halle the Union conducts its own classes at the school, the municipality contributing 200 marks towards expenses. This grant has enabled the size of the classes to be reduced and more

<sup>\*</sup> Die Heimarbeiterin, Jg. 10, November 1911, No. 11, p. 3.

individual attention given. The tailoring and whitework classes comprise as many as 50 members. A class for the cutting-out of whitework has also been started, in response to considerable demand on the part of the members who wished to add this branch of the trade to their stock of knowledge, thereby qualifying themselves to take in private work. As regards payment for this private work, the advice of the Union is to charge for it at the rate of 20-25 pf. an hour. The classes for the session of 1911-12 in tailoring, whitework, millinery, and pattern drawing already had their full complement of intending students in July 1911. A sales workshop is also a feature of this group. "The " difference in quality existing between the work of different members, and the constant reproof that has to be administered " to the less efficient workers in the workshops, proves how " necessary our training courses are. Women coming to us " soon see that the 'quick and bad' methods will not suit the class of work we undertake. Such women soon join the work class and train for private work or for the better shop work. "Our own workshop thus often loses its best workers, but we "rejoice at the development." The University Hospital placed a contract in 1911 for 850 shirts and 385 sheets with the Union, and was well satisfied with the result. This work was completed in April 1911, and further orders ensued. Sufficient orders to occupy the workshop for twelve months ahead were recorded in February 1911.

At Posen the Königliche Handels- und Gewerbe-Schule (Royal Commercial and Technical School) has recently admitted members of the Union to its classes, and many have availed themselves of the instruction given in tailoring and whitework. An instance of what can be achieved by energy and determination, and what the classes at the above school can accomplish for an out-worker, is proved by the report of the Posen branch. The present forewoman in the Union workshop is herself one of the Union's members, who by energy and ability has fully qualified herself for the post after the relatively short period of a six months' strenuous course. Under her able management the output is excellent, the business extending, and the circle of skilled workers growing. The workshop pays its members as much as, but no more, than is

given by good houses of business in the district.

At Breslau, two rooms (inclusive of light, tables, and machines) have been placed at the service of the Union in the domestic science department of one of the elementary schools. A certificated teacher in housewifery gives her services. The group has obtained the contract for making the Corporation clothing, the Corporation being the first employer in the town to offer the Union the rate of wages which it considers adequate. This group has a special committee, which examines the work stitch by stitch before delivery. All the members

<sup>\*</sup> Die Heimabeiterin, Jg. 10, October 1911, No. 10, p. 7.

wishing to partake in the orders sent to the Union must first

make a sample garment in the workshop.

Other municipalities subsidise the new effort in various ways. The expert repairing classes are found to meet a distinct need, expert menders being rare, and in demand. Several groups

of the Union have successfully started such courses.

Many of the groups have lately turned their attention to buying wholesale and selling to members at cost price. Many a pfennig is thus saved to the great satisfaction of members, as prices are rising. This co-operation is everywhere informal; no definite Supply Association or Corporation has been founded. Starting tentatively in quite small ways, one item after another is being bought by respective groups, and sold at the weekly meeting, or during the daily consultation hours. The principal articles purchased are: - Coffee, tea, cocoa, potatoes, soap, coal, coke, briquettes, malt coffee, oat cocoa, machine oil, needles, shirting, worsted, binding, and buttons. In some instances tenders are received from local coal merchants, prices and discounts rates discussed, and contracts agreed upon. Local sewing machine and knitting machine depôts also very generally give 25 per cent. discount to members of the Union. Country holidays are arranged, vicarages and country houses readily receiving members. An Old Age Home—to which the Empress has accorded her patronage, and to which she has contributed 1,000 marks—has recently been founded. Employment Bureaux for placing the skilled workers trained by the Union exist at most centres, and are very successful. Sick and burial insurance also forms part of the Union's activity. On the social side lectures and concerts are given. Several groups possess a debating society and a choir, Posen having a good three-part choir of women's voices. Social evenings are also given in some places for the young daughters of members, with the primary idea of inculcating the ideals of the Union. The weekly subscription to the Union varies from 10 to 40 pfennige. The writer visited the Frankfurt group and the Central Office at Berlin. The Frankfurt group had 200 members in 1910, and weekly gatherings were held on Monday evenings, when a trained teacher gave instruction in cutting-out, machining, and the repairing of any work which had been damaged by mishap. The women bring the articles on which they are at work for the trade. If such work should be behindhand as regards delivery, help can often be got during the evening to enable them to finish up to time. Instruction is free, being included in the member's subscription. The Berlin Central Office also had its permanent trained teacher. Orders are taken on which out-of-work members are employed. Fees for instruction, as is the case at Frankfurt, are included in the member's subscription. Lessons are given for a few days, or even for half-a-day if occasion arises, the aim, in these cases, being not to teach a new trade, but to promote efficiency. The writer saw a tailoress-machinist being given a lesson on a button-holing machine, in order to add a wider range to her technical knowledge and earning capacity.

The Union, like all other organisations especially interested in promoting the efficiency of women workers, such as, for instance, the Association for the Training of Women in Craft and Industry (Verband für handwerksmässige und fachgewerbliche Ausbildung der Frau), is keenly promoting opportunities to enable women to take advantage of the regulations in the new Imperial Industrial Code (Reichsgewerbeordnung) whereby they can qualify as journeymen in various specified trades (see p. 19 above). In Berlin, where from 35,000 to 40,000 persons are employed in the manufacture of ladies' ready-made clothing (Damenkonfektion), three-fourths of whom are women, and the overwhelming majority home workers, trade classes for the training of women are everywhere wanting, as are also girls' trade schools for higher industrial instruction.\* "The want of skilled workers in the wholesale clothing and bespoke tailoring (Massschneiderei) trades is well known; such women have to " be imported from Paris or Vienna, where tailoring trade schools " for women have long existed. Similar schools have been " recently started in London, but, as yet, none exist in Berlin." To remedy these defects the association has approached the Berlin Chamber of Handicrafts (Handwerkskammer) with the request that it should institute courses to prepare women for the journeyman's examination in the tailoring and hairdressing The Handwerkskammer has replied by permitting "all " such craftswomen to enter for the master-craftsman's exami-" nation as can prove that for five years prior to October, 1913, "they have worked as independent workwomen, or have held a " leading position in the trade for a like period." Opportunity is also given to younger women (who cannot fulfil these requirements) to qualify for the journeyman's examination before that date, by attendance at classes where practical and theoretical instruction will be given to all who can prove that they have had three years' practical experience in the profession. who pass their Gesellenprüfung before October 1st, 1913, will be qualified to enter, later on, for the master-craftsman's examination.‡ In this connection the new development at München-Gladbach may also be mentioned. A special department for ready-made clothing (Konfektionsabteilung) at the Higher Trade School for Textile Industry is under consideration. The department will train for the whole district, and the town of Rheydt has already decided to bear its share in the expense. At present very little higher middle-class or middle-class work is done in the place, which is almost entirely given up to "slop" clothing for working men. The suggested department, therefore, points to a local desire to improve both local technique and local output.

The year 1911 was a memorable one in the annals of homeworkers, as it saw the commencement of definite legislation on their behalf. Firstly, the Reichsversicherungsordnung (National

<sup>\*</sup> Die Heimarbeiterin, Jahrgang 11, No. 5, p. 6. † Ibid., Jahrgang 11, No. 12, p. 4. ‡ Ibid., Jahrgang 12, No. 9, p. 6.

Insurance Ordinance) was re-cast, and while still excluding home-workers from Invalidity Insurance Benefit (Invalidencersicherung), admitted them to that of Sick Insurance (Krankenversicherung). Secondly, the Hausarbeitgesetz was passed in December 1911, and came into force in April 1912. The efforts of the Trade Union of Women Home Workers were acknowledged in the Reichstag as having been definitely instrumental in promoting the Bill. "The Union is both proud and thankful " to think that five of the cardinal points of its propaganda are " amongst those embodied in the Act." These five points are:—1. The introduction of wages-books, these books to be provided by the employer. 2. The keeping of lists of out-workers by employers, such lists to be accessible to police authorities and factory inspectors. 3. The inspection of dwellings. This is not definitely stated in the Bill, but the elements of the reform are implied in point 2, which also is felt to provide a basis for the later regulation of workshops and homeindustry. 4. The prohibition of employers from giving factory hands work to finish at home. 5. (last and most important of all). The encouragement given to arrange price-lists, i.e., contract prices for definite patterns of definite articles. This last work is to be the duty of Fachausschüsse or trades' boards. Permission to form these boards is given in connection with certain trades. The great disappointment connected with the Act, from the women home-workers' point of view, is that it entirely excludes Lohnamte (trades' boards with the power to fix minimum wages as in England). The Government absolutely refused to touch the question of the State regulation of wages in any form. Among the parties in the Reichstag, the Centre and the Social Democrats agreed to the principle of a minimum wage. The Conservatives, Free Conservatives, and National Liberals were entirely against it.

Co-operative Production in Schwarzburg-Sondershausen.

In the foregoing account of the Trade Union of Women Home Workers the recent tentative development of co-operative consumption among the members of the various groups of the Union has been described.

Another and yet more enterprising example of co-operation, and one which it may be of interest to mention, has recently made its appearance among the peasant home-workers of Geschwenda, a place situated in the Thuringian Forest, in the little principality of Schwarzburg-Sondershausen. The venture is one of co-operative production. The district possesses a considerable seed industry, conducted by large growers. It is also a "verlegt" industry (see below, p. 44) carried on by peasant proprietors, who sell seed grown on their own land to the agents of big firms. The large growers employ both day labourers without holdings and peasant proprietors, who carry on their own small industry concurrently. As each man returns from

<sup>\*</sup> Die Heimarbeiterin, Jg. 12, January 1912, No. 1, pp. 1 and 2.

his daily work he brings home an armful of sticks gathered from the common forest land through which he passes. During the busy season these are just thrown down and left. When winter sets in and all outside work is at an end, men, women, and children alike set to work to peel and prepare this collected wood, turning it into carnation-sticks of various lengths, and seed labels of various sizes, all neatly cut, sized, bundled, and ready for the market. Until lately the ubiquitous factor has collected this produce, which passed through a surprising number of hands before reaching the final purchaser. Quite recently these workers have formed themselves into a Cooperative Supply Association, and deal with the factors as a corporation. They are also directly approaching the English dealers, ignoring all the middlemen who previously intervened, and are employing their own transport agent in Gotha (about 25 miles distant) to deliver the goods.

#### THE VERLAGSSYSTEM.

No description of German home industries or German out-workers would in any way be adequate if mention were not made of the Verlagssystem. In modern industrial undertakings the larger employers of labour are of two types. There is the employer who centralises his labour power in a factory and the man who decentralises it by employing out-workers. Some employers combine both methods. The decentralised form of labour is called the "Verlagssystem." The name, has arisen from the fact that employers of this kind generally advance either cash, material, or implements. The provision of these Vorschüsse or Vorlage has led to such a master being described as the "Verlagssystem." to the trade being styled "verlegt," and to the method being known as the "Verlagssystem." The words are used in this sense in no other connection.

In its English form the system is generally associated in our minds with the employment of large masses of low-paid workers in the "sweated" industries, but in reality it also covers a quantity of "small" masters, and, in some cases, many genuine craftsmen. In decentralised labour we find the town out-worker in Germany, as with us, spending all his or her time at one particular trade. This is not, however, the case with the country worker, who is often engaged in exactly the same industry, and may even be working for the same employer as the town out-worker. The countryman is generally a peasant proprietor. Agriculture proves insufficient to produce his whole living. He and his family have spare hours, in the winter often spare months, and to make both ends meet they, and often he, turn to some supplementary industry. During the busy agricultural season the whole family drop the Nebenberuf altogether. The secondary calling chosen may be some new industry which is gradually creeping out of some manufacturing town near, as at Pforzheim, or it may be some still marketable but ancient

local industry, as at Enchenreuth. Most of these old homeindustries have been gradually, for some time past, falling into the hands of the Verleger, whose agents have already been mentioned as active among the peasants of Enchenreuth and Wolfschlugen and in the villages of Oberpfalz. the produce of the entire winter's work is collected in the spring, sometimes the workers themselves, or the firm's agents, go to and fro; at München-Gladbach—the system is different and unique—the factory owner works with no middleman, but sends round collecting carts from house to house. The work in this district consists of workmen's cheap clothing (Blaudruck). In the town of München-Gladbach the industry is a Hauptberuf (exclusive calling), in the country districts it is a Nebenberuf. From the town out-worker's point of view these Nebenberufe, when entering into competition with his own production, can only be regarded as parasitic. Their existence is only rendered possible by their being subsidised by another industry. undoubtedly depress the wages of the town worker. From the country worker's point of view, his two trades are interdependent. One just balances the other, and makes existence possible. Great and crying as is the necessity for reform—as evidenced by the sweated industries exhibitions in Berlin and Frankfurt—the fact must not be lost sight of, that the low rates of payment made to many German workers are made to people whose fundamental economic position is a very different one from that obtaining universally among our out-workers.\* Our worker accepting "sweated" prices has no holding, no forest or fishing rights, no grazing rights. Nor has the German town worker, but the country worker may possess one, or more, or all of these. In saying this, however, the writer does not wish to deny the terrible struggle for existence that is the lot of many of these peasantry, notwithstanding such rights and Nebenberufe—a struggle to which the statistical returns in many books now appearing on the subject bear ample witness,† as they also bear witness to the superior physique and healthier environment of the country worker in contrast to his town competitor engaged in the same trade.

#### Conclusion.

In the face of all these difficulties and conflicting problems, to which they are fully alive, the different States of the German Empire are all agreed as to the advisability of educating the peasant population for these extra callings, and by improvement

† See Appendix II., p. 59, for some of the chief centres of " rerleyt" low-

<sup>+</sup> See Bibliography, p. 61, works by K. Bittmann, P. Arndt, C. Heiss and A. Koppel.

D

x = 12106

<sup>\*</sup> As an example of this:—The Royal Commission on Labour, Vol. V. (Germany), published in 1893. by the English Foreign Office, p. 20, states that "80 per cent. of the Bavarian population belong to the class of small peasant farmers."

in method, technique, and plant to raise the earning capacity of

the workers, and keep a healthy peasantry on the land.

Perhaps it is the presence of this mass of peasant proprietors, and of the undoubted art instinct that is found among them, that accounts for the persistent German belief in craft and the eraftsman. The writer has encountered—both in literature and life—English critics of Germany who speak of our own barrackfactory towns as the climax of industrial civilisation, and of "small" industry and independent handicraft as out-worn forms decaying before the inevitable. It surprises them that so intelligent and progressive a nation should see special virtue in craft and in its preservation, and should be entering at this late hour on the seemingly useless task of bolstering up economic survivals. Such action they think must be surely due to sentiment, or to the want of perception as to the direction of the stream of tendency. Whatever be the reason, it is very evident that the German does not believe that the fiat has gone forth that Kleinbetrieb must lie prostrate and vanquished at the feet of the Frankenstein monster of Grossbetrieb. Facts in his country do not all point one way. Decentralised labour, he realises, may in some trades be a growing and not a decaying force, in spite of the veto of the Social Democrat, and the complaint of the craftsmaster that apprentices are scarce. At the present moment, to strengthen this opinion, a new phase of industrial development is revealing itself in the spontaneous extension of decentralisation. It is invading industries to which it is new, or has hitherto only existed in small measure. If, in some rural districts, the cry is still that desertion to large towns continues, on the other hand, there are proofs—according to so great an authority as Oberregierungsrat Dr. Bittmann, chief factory inspector for Baden—of a trend in exactly the opposite direction. He gives some striking examples and statistics of this tendency as existant in the Grand Duchy of Baden. It is to be found in the well-known jewellery trade at Pforzheim; in the tobacco trade, which is at the present time one of Germany's most rapidly growing industries; and, in a minor degree, in the brush-making and clock-making trades. "Employers are de-"ploring the empty seats in the tobacco factories." "brush-making is much hindered by want of women factory "hands. . . . In Pforzheim three thousand vacant places " exist in the factories." It is said by some that too stringent factory legislation has driven production to the home-worker. In Baden, at any rate, the driving force appears to be of another kind. Dr. Bittmann says, that the feeling that is awakening is the natural love of a man to be "Herr im Hause," to have some dwelling-place and bit of land, however small, that he can call his own. To possess these he will face isolation, lower wages, and irregular arrival of work. All other con-

<sup>\*</sup> Karl Bittmann, Hausindustrie und Heimarbeit im Grossherzogtum Baden, p. 1031-2.

siderations are outweighed by the fact of having escaped from the factory and being once more his own master, leading his life with his family working round him. Dr. Bittmann's belief is that home industry has great possibilities before it. He draws attention to the growing desire for legislation with regard to home industries, some of which are now being carried on as adjuncts to factory work (Filialarbeitstellen für die Fabriken). Present social developments demand that work of this kind should be carried on under proper legislative safeguards as regards conditions, wages, and so forth, but such safeguards will, in Dr. Bittmann's view, encourage the formation of new home industries, even if some of the older ones do not survive. As the introduction of steam power tended to the concentration of work in factories, so the use of electricity may make it possible to decentralise certain kinds of work. What the economic significance of home industry carried on under healthy conditions will be, is among the problems of the future.

The problem is surely one of the most interesting that has arisen of late years. Is the peasant proprietor, with a re-organised Nebenberuf to solve the question of "back-to-the-land"? Can such Nebenberuf rival, or will it only supplement factory output? Is the new departure merely going to sink the peasantry still further in the helpless and hopeless condition of low paid work and low efficiency, or is it destined to raise such

work to the dignity of a craft.

Germany is everywhere striving to answer the question by bringing the best trade teaching available within the reach, not only of those craftsmen who are still holding their own, but also within reach of those home-workers whose future well-being is at the parting of the ways, or who are already sinking into

the abyss.

A further point of considerable interest emerges as we take a general survey of the municipal and State education here outlined. In all cases the schools are fully equipped with the latest plant and staffed with the highest expert teaching. None of the schools described attempt to teach a smattering of several trades by means of insufficient plant; or to train, however thoroughly, for trades which were previously nonexistent in the district (the lace school at Val de Ville and the furniture school at Fürth excepted).

They train for one trade only, and that trade is the trade of the district, or for some analogous trade as at Enchenreuth, where technical knowledge and manual dexterity already exist and are readily adaptable to new, and what are proving to be profitable, experiments. All these schools are local, and aim at producing efficient local workers to support, raise, and extend local industry and well-being. In some cases they are only for the inhabitants of the district. In others, students from

<sup>\*</sup> Karl Bittmann, Hausindustrie und Heimarbeit im Grossherzogtum Baden, p. 1033. † 1bid., pp. 1087, 1113-4. x 12106

a distance are not debarred from entry, but are admitted at a higher fee, and inexpensive board and lodging are provided for them. Such an arrangement is obviously just, for the skill and knowledge, which these students acquire, will not in these instances benefit the locality or the State, which together are bearing the main cost of the training. In fact, the skill and knowledge thus obtained may even eventually compete with their own industry. By means, however, of this higher tariff, the door is left open to genuine desire and talent to make use of the opportunities here provided, and which exist at a few such centres only. Private enterprise has met public demand by providing a hand-book containing a classified list of German trade schools with information as to where such special training centres have arisen, and all particulars concerning them.\*

In conclusion the writer would like to touch for a few

moments on decentralized labour in England.

No attempt can be made at the end of a short pamphlet adequately to discuss so large a subject, the extent to which it exists, if it be growing or declining, or to compare the relative position of home-workers in the two countries. Most of us, however, are aware of the fact that a large amount of this class of labour is employed in the ready-made clothing trades of London, Leeds and elsewhere, also in box and umbrella making, in the peasant lace industries of Buckinghamshire, Bedfordshire, Devonshire, and other counties, in Scottish homespun, and in Irish crochet, lace, and white embroidery. It may, however, not be so generally realised that a mass of home industry exists, uncaptured by the barrack factory system, of which much less is known and written about. Such, for instance, is the small

tool industry and much metal and wood-work.

Before the advent of steam-hammer dies, which to-day make the rough shapes of our smaller tools, such as pliers, pincers. hammers, scissors, &c., all these articles were made in Lancashire and in Sheffield by small makers, and even now the best of these articles are still so made, especially when the variety is large and the sale of each particular article is not sufficiently great to warrant the laying down of expensive plant. In the pocketknife trade, for example, the better varieties pass through thirty or forty hands before they are completed. Obviously it is only in the cheaper styles of these articles where large quantities of one size and shape are made that machinery can count at all. But machinery when once installed can often be adapted later on to do other work. It therefore frequently occurs that machinery originally put down to produce a common quality of some special article only, by adaptation, gradually works its way into manufacturing a medium quality of the same article. It would have proved a dead loss to have started the machinery to make the medium quality in the first instance. Little by

<sup>\*</sup> Deutsches Fachschulwesen herausgegeben von C. Malcomes (See Bibliography, pp. 60-61).

little this method has had the effect of checking variety and more standard patterns have become current. The highest quality of the article is, however, still made in many cases by the "small" master, and is also made in some of the highest class shops, whose name carries great weight among the best

class of purchasers.

The Staffordshire trades present, at the moment, a curious study in this respect. To the uninitiated it would appear that the great existing factory buildings are owned by a single firm or company, and that all the goods turned out are the produce of that one firm or company. Whereas, as a matter of fact, they are not. In many of the buildings which have the appearance of being worked as a single whole, the owner himself may only be using a part of the premises. For instance, in a factory or mill consisting of fifty rooms, twenty-five or thirty may be sufficient for the owner's own business. The remainder are let off in self-contained workshops to anyone desiring to take one or more. The tenant pays rent for "shop-room plus power," thereby obtaining, by arrangement, the amount of horse-power that he needs from the engine which is already supplying the rest of the building. The occupants of these rooms are quite independent and work entirely on their own account. They take work from wherever they can get it, and are free to buy and sell where they will. Sometimes they work for some factory owner, sometimes for a "small" master, sometimes they are "small" masters themselves, who have special knowledge and special facilities for the production of some special piece of work. They themselves, or their men and boys, usually fetch their own work, which, when finished, consists of the lesser parts of some whole, or of some simple article finished and complete.

The same methods exist in the Birmingham trades, where many "small" men specialise on the making of one class of article or even on a single article. For example, it has become common for these "small" men to stamp articles like finger plates on doors. These workers simply make the roughly finished stamping only, selling these stampings to other brassfounders or workmen, who finish them off in their own shops as their own articles. The reason for this being that the "small" man by specialising on one pattern, or on one article, can lessen the large cost of the die by producing large quantities of articles from it, and by disposing of them in their unfinished state. In this way all are benefited, and so the complex working goes on, the "small" man being squeezed out in one direction and

flourishing exceedingly in another.

Another large group of articles made in a similar way are the locks manufactured at Willenhall, in Staffordshire. This centre would be well worth a visit to anyone wishing to investigate the ramifications of a very wonderful trade.

The domestic woodwork and birdcage-making trades are also industries which are almost entirely in the hands of

"small" makers. Sometimes these workers make a single size of a single article only, and rarely make more than a single pattern in its various sizes. Wooden articles so made are laundry plant, buckets, knife-boards, cinder-sieves, housemaids'

boxes, plate-racks, &c.

These are a few examples of English trades in which "small" masters and home workers at the present time engage, examples which might be extended almost ad infinitum, and which lead to the reflection that the England of the twentieth century is not so entirely dominated by the giant factory as some people imagine. They also suggest that decentralised labour and "small" men exist in sufficient quantities to warrant steps being taken for the economic betterment and encouragement of these craftsmen and craftswomen by the provision of sound technical training on some such lines as is being so universally promoted in Germany.

EDITH EDLMANN.

## APPENDIX I.

SUMMARISED DETAILS OF SOME OF THE SCHOOLS DESCRIBED.

#### BAVARIA.

STATE AND STATE-AIDED SCHOOLS UNDER THE MINISTRY OF THE INTERIOR FOR CHURCH AND SCHOOL AFFAIRS.

1.—THE WOOD-CARVING SCHOOL AT BERCHTESGADEN.

Administration.—This school is under the Chamber of the Interior of Upper Bavaria, and more directly under the State District Office (K. Bezirksamt) of Berchtesgaden.

Management.—The management of the school is vested in a Board composed of the Chairman, or Deputy Chairman, and ten members of the District Council (these latter elected every three years), and also of the School Committee. A treasurer is nominated by themselves from among their number.

Organisation.—The school is in four Divisions:—

Division A.—For figure carvers (a four years' course).

B.—For art cabinet makers (a four years' course).

,, C.—For house carpenters. Tuition is generally given during the winter months from November to Easter.

n.—For elementary school children, apprentices and assistants. This division also includes the two affiliated schools of Marktschellenberg and Ramsau. The study plan is alike in the three schools. This division is further sub-divided into a day school for school children and apprentices and an evening school for apprentices and assistants.

At the conclusion of the four years' course there is a final examination in Divisions A. and B. The leaving Examination Certificate is granted conjointly by the Ministry of the Royal House and Foreign Department

and the Minister of the Interior for Church and School Affairs. The holder of the certificate having attained his 24th year, and having had three years' further practical experience, is entitled to take apprentices (Gewerbe-ordnung, 7te Juli 1910, 129 Abs.). Full details of the instruction given in each division are to be found in the Bayerische Landesgewerbezeitung for March 1911. (See below, Bibliography, pp. 59-60.)

#### 2.—The Embroidery School at Enchenreuth (founded 1900).\*

Staff.—Directress, Frau Mia Cornelius. Assistant Directress, Fraulein Marie Frey (Munich); one teacher of Drawing and Design (Munich); three teachers of embroidery (one trained in Munich and two locally).

Aim.—Not only to train workers for the local white embroidery industry, but also to place them in a position to undertake a good class of order independently. With this end in view the teaching is brought into as close a relationship as possible with peasant home industry.

Term.—Summer course from May to September. Girls join on leaving the elementary school.

Fees.-None.

Sale of Students' Work.—Made-up articles for sale artistically embroidered. The pupils are paid for work done.

Style.—Coloured embroidery, appliqué, and fancy stitching on coarse linen.

#### 3.—THE UNITED PILLOW LACE SCHOOLS OF OBERPFALZ.

Stadlern† (founded 1901), Schönsee (1906), Tiefenbach (1907).

General Art Supervision.—Frau Mia Cornelius (Munich). Each school has also its own highly qualified and certificated State teacher.

Aim.—To give thorough instruction in all branches of pillow-made lace by providing the best teachers and designs possible.

Organisation.—Each school is divided into three divisions:—

Division I.—Beginners and indifferent workers.

" II.—Girls of average aptitude.

III.—Workers distinguished by skill and industry.

Term.—The school year runs from October to the end of July; the terms begin on October 1st and May 1st.

Holidays.—5th August-1st October.

School Hours.-Four hours daily.

Entrance Qualifications.—Each school is open to girls between the ages of 7 and 16 who live within the commune (Gemeinde) in which the school is situated.

Fees.—None.

Sale of Students' Work.—Lace for sale. Pupils receive money for work sold.

# 4. The Royal Bavarian Trade School for Ceramics at Landshut.

Administration.—The school is an independent institution under the State Director of the Municipal Secondary School (Realschule) in Landshut, who is assisted by an expert Advisory Committee. Instruction is given in Domestic Art Pottery and Tiled Stove manufacture.

<sup>\* (</sup>See below Bibliography, pp. 60-61. Deutsches Fuchschulwesen, herausgegehen von C. Malcomes, Heft 11., p. 39.)

<sup>†</sup> Ibid., Heft II., p. 60.

Aim.—To resuscitate the once flourishing pottery trade of the district (a) by training a body of young recruits for the trade, (b) by providing classes for journeymen and master-craftsmen with instruction in the latest methods, particular attention being paid to technique, and the scientific and artistic aspect of the work.

Organisation.—The school is in four departments:—

#### 1. The Preparatory School.

Entrance Qualifications.—Previous elementary school or higher grade education.

Length of Course.—Two years.

Subjects of Instruction.—Practice in the workshops, and in kiln work, modelling, drawing, and instruction in trade subjects.

#### 2. The Trade School.

Entrance Qualifications.—Satisfactory attendance at the Preparatory School, or two years' apprenticeship under a master-craftsman. Pupils are strongly recommended to serve a three years' apprenticeship and go in for the journeyman's examination before joining the school. Special notice is taken by the management of pupils with this experience.

Length of Course.—Two courses of a year each. Pupils are expected to enter for both courses. Occasional exceptions are made in special cases.

School Year.—From September 1st to July 31st. During the Christmas and Easter vacations at the Realschule and from the 14th-31st July the theoretical teaching is discontinued and the time thus set at liberty is devoted to practical instruction.

Time Table.—Forty-eight hours per week. Divided into Courses I. and II. as follows:—

Course I.	Hours per Week.
1. Practical Work (workshops) with technologic	
illustration	- 14
2. Drawing and Painting	- 12
3. Modelling	- 8
	- 3
4. Theoretical Chemistry and Mineralogy	
5. Practical Chemistry with Technology -	- 6
6. Physics (with technical experiments) -	- 2
7. German and Arithmetic	- 3
	_48_
Course II.	
1. Practical Work (workshops) with technolog	ical
illustrations	- 12
2. Drawing and Painting	- 8
3. Modelling	- 12
4. Theoretical and Practical Chemistry and Cera	mie
Technology	- 8
5. Geology with special bearing on Ceramics -	- 1
6. Physics with technical experiments -	- 1
7 Figure technique the cretic and precised	- 1
7. Firing technique, theoretic and practical - 8. Health Laws	- 1
9. Industrial Law	. 1
10. German and Arithmetic	- 3
	48

Fees.—Twenty marks a year for German subjects, forty marks for foreigners. Fees partially or wholly remitted to necessitous German students. Bavarian subjects eligible for grants.

#### 3. Journeymen's Course.

Entrance Qualifications.—Satisfactory three years' apprenticeship under a master-craftsman, or the successful passing of the final examination at the recognised Pottery Trade School.

Length of Course.—One year, commencing in September. The arrangement of a course beginning in April is not excluded.

Subjects of Instruction :-

- 1. Workshops and Kiln Practice.
- Practical Chemistry concerning material composition of pastes and coatings. Calculation and manufacture of simple colour-bodies and glazes.
- 3. Drawing, Painting, Modelling.
- Laws of Health, Industrial Law. Commercial Training, Bookkeeping and Arithmetic.
- 4. Classes for Master-Potters.

Such classes are held as required.

#### WURTEMBERG.

Schools for Peasant Industry and Independent Craftsmen under the Ministry of the Interior for Trade and Commerce.

THE STATE EMBROIDERY SCHOOL AT WOLFSCHLUGEN.

Administration.—The school is a State school with financial aid from the commune in which it is situated.

Staff:—Special instructress, who teaches Embroidery, Drawing and Design. A master from the elementary school teaches Arithmetic, Bookkeeping, and Commercial Correspondence.

Aim.—To improve the local white embroidery industry so that a better quality of work and higher wages may result.

Entrance Qualifications.—Girls resident in the commune over school-leaving age are eligible.

 $Length\ of\ Course.$ —Two years. The hours of work are seven hours a day.

Method of Training.—The class works collectively on a large sampler.

Designs.—Selected by the State from the work of students at the Frauenarbeitschulen of Ulm, Heilbron, Reutlingen and, Stuttgart.

Fees.—Eight marks for the first year's course and five for the second.

Sale of Students' Work.—The school sells no work and provides no materials other than the samplers. The girls, when competent, work for orders in school hours; the teachers, however, leave arrangements concerning payment entirely to the girls and their employers.

THE WEAVING SCHOOL FOR MEN AT SINDELFINGEN.\*

This school is typical of a number of similar schools.

Administration.—A State-aided communal school.

Direction.—The Director is paid by the State. The present Director was formerly the manager of a weaving business.

Aim.—To teach the theory and practice of various methods of weaving in relation to the many-sided industry of the district (Bezirk).

Organisation.—Daily instruction for the inhabitants of the district.

Fees.—Thirty marks.

<sup>\*</sup> Deutsches Fachschulwesen, herausgegeben von C. Malcomes, Heft II., p. 58.

#### SAXONY.

THE ROYAL TECHNICAL PILLOW LACE SCHOOL AT SCHNEEBERG IN THE ERZGEBIRGE.\*\*

Aim.—The training of teachers for lace schools, and of competent workers for the industry. Instruction is given in all technical branches of the trade.

Organisation.—The school is in two divisions.

Division A.—Pupils training as Teachers and Workers for the Industry.

Entrance Qualifications.—The pupils must have reached their 15th year, have obtained the distinction of "very good" in the highest class of their previous lace school, and have been in the top class of the elementary school.

Length of Course.—Three years.

School Year .- From Easter to Easter.

Holidays.—Easter 2 weeks, Whitsuntide 1 week, Summer 4 weeks, Michaelmas 1 week, and Christmas 2 weeks.

Certificate and Examination.—After having completed the three years' course and passed the examination the pupils obtain a certificate giving them the right to teach.

Fees.—None.

Division B.—Lace Makers attending for Improvement.

Instruction.—By the hour.

Fees.—For one hour weekly 5 marks per annum.

### HESSE-NASSAU (PRUSSIA).

THE ROYAL TRADE SCHOOL AT SCHMALKALDEN FOR SMALL IRON AND STEEL WARE.

(Under the Royal Prussian Ministry of Trade and Commerce.)

Administration.—The Prussian Minister for Trade and Commerce and the Governor at Cassel.

Governing Body.—The governing body is composed of leading local State and town officials, tradesmen, manufacturers, master-craftsmen, and the Director, numbering ten in all.

Staff.—The staff numbers seven. It comprises the Director, a technical engineer, a trade instructor, three master-craftsmen and the District Medical Officer, who lectures on health and first aid.

School Courses.—I. Yearly course for young men and boys, conducted in a higher and lower division.

II. Evening and Sunday classes for older workmen.

1II. Course for teachers in trade continuation schools.

#### 1. The Day School.—

Organisation.—The school is divided into a higher and a lower division.

Length of Course.—Two years at least are necessary to perfect the training satisfactorily.

School Year.—The school year extends from Easter to Easter and averages 41 weeks; 27 hours per week are given to practical work and 24 to theory and drawing.

<sup>\*</sup> Deutsches Fachschulewesen, herausgegeben von C. Malcomes, Heft II.. p. 56.

Holidays.—Whitsuntide, 1 week; Midsummer, 6 weeks for the lower division and 4 weeks for the upper division; Christmas, 2 weeks.

Practical Work.—(27 hours per week.) The aim of the practical work is to give instruction in the industry of the district, i.e., the making of articles of good quality in connection with the small iron and steel trade, more especially in special tools needed in local industry. Instruction is also given in tempering, electro-plating, stamping, forging, and locksmith's work.

Technical Work.—(24 hours per week.)

	Time Table.	2nd Division.		1st Division.	
	Subject.	Summer.	Winter.	Summer,	Winter.
1	German and Composi-	3	3	2	2
2	Business methods as applied to Industry.		_	3	3
3	Commercial Arithmetic	2	<u>2</u> 5	1	1
4	Mathematics	2 5 3		_	_
5	Physics	3	2	_	_
6	Electrical Engineering	_	_	3	3
7	Chemistry	1	1	_	_
8	Mechanics	_	3	3	3
9	Geometrical and Pro- jection Drawing.	6	3	_	
10	Technical Freehand Drawing.	_	4	6	6
11	Sketching and Trade Drawing.	3	_	-	_
12	Raw Material and Engineering Technology.	1	1	3	3
13	Engineering		_	3	3
	Hours per week -	24	24	24	24

Examination.—At the close of each school year an examination is held by special order of the Royal Examinations Commission. Students of the first division are eligible if sufficiently advanced.

Certificate.—Students passing the examination obtain a Government Certificate, which exempts the holder from passing the journeyman's examination, and may also excuse him, during military training, from any further technical examination.

#### Educational Plant.

- (a) The Power-station.—The power-station possesses a steam-engine of 25 horse-power—a tubular boiler—2 direct current dynamos of 11 (respectively 4–5) kilowatt power, and an accumulator battery of 216–290 ampère capacity, also the requisite switch-board and measuring instruments. The entire power of the steam-engine is converted into electric energy and drives the machinery, lights the school-house and workshops, and is used for experiments.
- (b) The Engineering Workshop.—The engineering workshop contains the following machine tools:—5 engine lathes, 3 hollow spindle lathes, 5 mandrils, 1 universal back-geared lathe, 1 capstan lathe, 2 universal milling machines, 1 vertical milling machine, 1 shaping machine, 1 table-

planing machine, 1 surface grinder, 1 universal cylindrical grinding machine, 2 tool grinders, 1 twist-drill grinder, 2 high speed (sensitive) drills, 1 large drilling machine, 1 cold saw, 2 grindstones, and a large number of small tools for the above machines.

- (c) The Locksmiths' Shop.—This contains 4 benches fitted with 32 vices and the necessary tools for each worker's place. The ordinary tools exist in large quantities and variety, and are checked off in a "tool-book" when given out; the receipt being entered against the pupil's name. There exists besides a lever shear for cutting sheet-metal, a guillotine shear, a punch, a fly press, a large cutting block for metal and the necessary tools, and 5 smaller machines for metal plate-working, and a complete set of appliances for autocene welding, straightening, bench anvil forging, &c.
- (d) The Forging Shop.—This contains 8 hearths with all necessary accompanying tools for forge work. The fires are fed by a continuous blast from an electric fan. A pneumatic hammer is used for heavy work and for stamping (Gesenkschmiedearbeit) a drop-hammer is used. Both are worked by the electric engine.
- (e) The Buffing and Polishing Shop.—This contains both a buffing and polishing machine, with 6 different model attachments for grinding, buffing, and polishing, which are provided with the best apparatus for dust absorption known.
- (f) The Electro-plating Shop.—This contains four different baths for nickel, copper, brass, and zinc plating and two for bronzing. Work is done by low-tension current. All the necessary apparatus for surface-treatment also exists, such as a grease-checking table supplied with sprays, alkaline boiler, gas-water boiler, cold-water tanks, &c.
- (g) The Hardening and Tempering Shop.—This contains a charcoal hearth, a coal-fired furnace, a case-hardening and annealing muffle, a gas furnace with oil valve and pyrometer for controlling temperature, and various other furnaces. There are four large fresh-water tanks for quenching; oil and salt water being used as tempering mediums. The tanks are supplied with heating and cooling arrangements, and with sprays of various kinds, thermometers, &c.

The new Stamping Smithy (Gesenkschmiede) is fitted with a 12 horse-power electric engine and switchboard made in Schmalkalden, an imported lift-hammer on the Bradley principle, a drop-hammer (latest model), by Billings and Spencer. The remainder of the modern up-to-date fittings are of German make.

The new Grinding and Polishing Shop.—This shop is fitted with German machinery and contains two grinding machines (emery powder), three buffing machines (one of the Solingen and two of the Schmalkalden design), two polishing machines, very special and complete arrangements for dust conducting and exhaustion on the latest approved principles, as are also those for ventilation and heating. A switchboard and measuring instruments in connection with the various grinding, buffing, and polishing machines, and the exhaustor complete the installation. Both this shop and the Stamping Smithy have been erected since 1910.

Fees.—For Prussian subjects 60 marks, for German non-Prussian subjects 160 marks, for foreigners 300 marks.

Grants and Reduction and Remission of Fees.—These can be obtained by clever and well-conducted applicants of small means.

## APPENDIX II.

Classes for Outworkers held at the Principal Branches of the Trade Union of the Women Home Workers of Germany in the Ready-made Clothing, Underwear, and Allied Industries.

#### Berlin (10 groups).

Courses.—Courses are held at the Central Office in connection with the ready-made clothing industry of the district.

Fees are included in the members' subscriptions.

Aim —To train members up to the standard of efficiency required for higher middle-class work.

Sales Workshop.—A sales workshop was started in 1910 at the Central Office under a trained permanent teacher, and was the outcome of successful classes previously held with financial help from the Berlin branch of Frauenhilfe, a society for assisting women Instruction is also given to individual members. Orders are taken. The writer saw a completed order from the Empress for clothing for the poor at Christmas.

#### BRESLAU.

Municipal Aid.—The Corporation lends two rooms in an elementary school which are fitted up for Domestic Science instruction. A certificated teacher in Domestic Science gives her services. The school also provides light and sewing machines.

Subjects taught.—Whitework, tailoring and cutting out. A course for costume jacket-making is under contemplation.

Length of Course.—Six weeks. The classes are held twice weekly from 8 to  $10~\mathrm{p.m.}$ 

Fees.—1.50 marks per course. To defray expense of material.

Sales Workshop.—This branch has the contract for the Corporation Clothing Department. A committee of three (selected from the management of the Union) inspect the work before delivery and see that that it is up to the required standard. Each member, before being admitted to undertake the Corporation work, has to make a specimen shirt in the training class.

# Dresden (3 groups).

Municipal Aid.—The Town Council has granted 300 marks, and an endowed charity (Mendelstiftung) has provided a sewing machine for 20 marks.

Subjects taught.—(a) plain work, (b) fine whitework.

Courses.—The courses, which have just been started, consist in:—Fine work: a six weeks' course. Plain work: a three weeks' course. A second class for fine work has been started, as so many wished to join. There is a good demand for the work of the better class workers. A three weeks' repairing course is shortly to be started.

The chief industries of the district are straw hat and artificial flower making. Few of these workers have, however, as yet, joined the Union. Prices are very low for the commoner kinds of flowers. These are manufactured by peasant proprietors in the country districts during the slack agricultural season, whole families working at the trade.

#### FRANKFURT A.M.

Subjects taught.—Repairing, needlework, and machining. The teaching is done in conjunction with another society for training needlewomen and machinists. The Union provides accommodation and machines, the other society defrays the cost of two trained teachers, light, and cleaning.

Courses.—The Class for repairing, machining, &c., is held every Monday from  $7.30-9.30~\mathrm{p.m.}$ 

Fees.—Fees are included in members' subscriptions. The expert repairing refers to articles damaged in making. Members provide all material and work necessaries. The class is well attended and the results satisfactory. Whitework is the special industry of the neighbourhood. Women make from 16–18 pf. an hour at the commoner work. The better work is well paid. The latter is done in the suburb of Heddernheim and the former in that of Schwanheim.

#### GRIESHEIM A.M.

Municipal Aid.—Accommodation is provided in an infant school. Two trained teachers from Frankfort also give their services.

Subjects taught.—Simple tailoring, cutting, fitting, and putting together. The necessary machining is done by the women at home. This course is intended to improve the women's technique and at the same time to teach them to make clothes for themselves and their families. The class started work on factory overalls.

Length of Course.—Six weeks for two evenings weekly. Hours 8-10 p.m. Members provide their own material. The class numbers 24. Much interest is shown and the results are good.

Fees.—1 mark per course.

#### Halle (2 groups).

Municipal Aid.—There is a municipal grant of 200 marks. The classes take place in the Gewerbeschule (Technical School).

Subjects taught.—Tailoring, repairing, millinery, whitework, white cutting out and pattern drawing.

Sales Workshop.—The sales workshop undertakes contracts and has that of the University Hospital and other institutions. The principal low-paid home industry of the place is paper-bag manufacture.

#### HANOVER.

Subjects taught.—Renovation of all kinds, including expert darning. Whitework. Tailoring.

 $\it Tailoring\ Class.$ —Lasts six weeks. Classes four times a week from 8–10 p.m.

Fees. -3.50 marks, including material.

Sales Workshop.—The sales workshop takes orders and strives to train skilled workers, only skilled workers are recommended through the Union's Exchange.

#### Cologne (2 groups).

Subjects taught.—Pillow lace making. The course has not been long started. Several members have obtained permanent work after training.

#### Posen.

Municipal Aid.—The Königl. Handels-und Gewerbeschule has opened its doors to members of the Union, who are taking active advantage of the courses in tailoring and whitework.

Subjects taught.—Cutting out and whitework. Both are very successful.

Aim.— To secure efficiency and thereby more permanence of work and better prices.

#### STOLP IN POMERANIA.

Municipal Aid.—The town provides accommodation.

Subjects taught.—Sewing and Swiss work. White embroidery (edgings) is the speciality of the district.

Sales Workshop.—The sales workshop is proving successful. Plenty of orders are coming in, and a body of young skilled workers is growing up. This work is very poorly paid in the district.

#### STUTTGART (3 groups).

Municipal Aid.—Accommodation and lighting are provided free of charge.

Subjects taught.—Expert repairing, more especially of linen, lace, and curtains. Classes open to members only.

Length of Course.—Three months. The class is held twice weekly from 7 to 9 p.m. in summer.

Fees.-2 marks per month.

Aim.—To turn out expert darners, patchers, and menders. It is stated that this training in expert repairing affords good prospects, as skilled workers are rare and much sought after. At first only a few joined the course, but the demand for the workers trained therein is now creating a supply of pupils, and latterly the classes have been well attended.

Before leaving the subject it may be of interest to mention a few other centres of low-paid women's home work, although the Union has no branches in these places.

Aachen.—This town is the home of much shoddy (Lumpfen) manufacture. Hooks and eyes are also sewn on eards, an occupation which is very badly paid.

Crefeld and Neuss.—These towns have a large cravat-making industry. The work is better paid in the former place than in the latter, where the price is very low. The women sew the length and the middlemen finish the article. Trade schools exist at both places.

Nüremberg.—Many tin-soldiers are made here. This is part-time work and rather better paid than some other trades.

Thuringia.—Toys are made in Thuringia. At Sonneberg the industry is in toys, dolls, and painted wood work. Throughout the district the work is badly paid.

Silesia (Prussian Province).—This district contributes cheap gloves, collars and shirts.

Planen.—Planen has a weaving trade which is declining, and makes cheap needle lace and toys amongst other things. These industries stretch from the Erzgebirge into Saxony.

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(This paper is producing, under enactment of the Government, (November 1910), and with the co-operation of the National Industrial Institution (Landesgewerbeanstalt), a series of articles on Bavarian Industrial Schools gewerblich-technisches Schulwesen). The schools, for this purpose, are divided into three groups:—1. Intermediate Industrial Art and Technical Schools (Mittelschulen); 2. Industrial Trade Schools; 3. Industrial Continuation Schools. The articles are descriptive of the management and development, attendance at, and aims of all such schools. The paper will also contain reports by industrial school experts on questions of technique, method, &c. The January number for 1911 contains accounts of the schools at Zwiesel, Selb, Landshut, Fürth, Lichtenfels, and Enchenreuth. To that relating to the Zwiesel Glass School this present report is largely indebted. The March number contains accounts of the Wood-carving Schools at Berchtesgaden, Oberammergau and Zwiesel, to which the writer is likewise indebted.)

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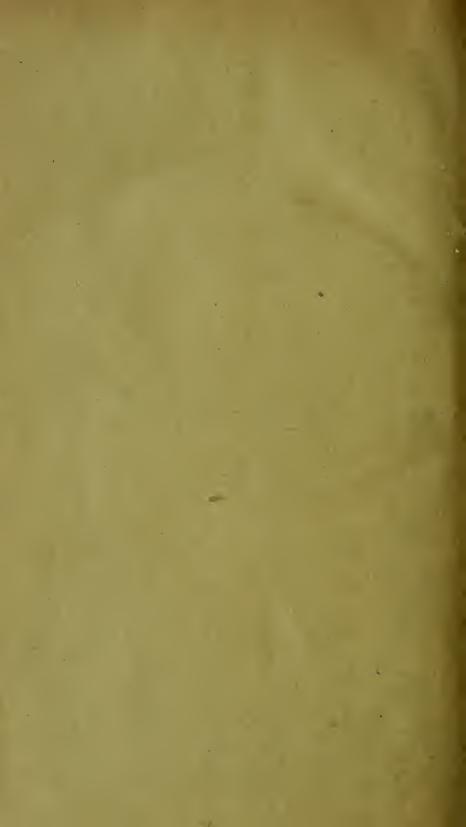
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